STIC-Biotech/ChemLib

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Page, Thurman

Sent:

Friday, March 21, 2003 3:00 PM STIC-Biotech/ChemLib

T: Cc:

Subject:

Bertoglio, Valarie FW: SEQUENCE RUSH

Imp rtance:

High

RUSH SEARCH APPROVED BASED ON FILING DATE.

Examiner Bertoglio,

Please send reasons with request. I assumed the rush is based on filing date.

thanks

Thurman K. Page SPE, Art Unit 1615 Cm1-2B01 703-308-2927

----Original Message----Fr m: Bertoglio, Valarie

Sent: Friday, March 21, 2003 2:57 PM

Page, Thurman To:

Cc: Chan, Christina; Hutzell, Paula Subject: FW: SEQUENCE RUSH



I would like to request a search of SEQ ID NO1 against the commercial protein databases for application 10/039645, first anmed inventor:Kopin, Alan

Valarie Bertoglio

Valarie Bertoglio Patent Examiner Art Unit 1632 Room#2A16 CM1 Mailbox: 12E12 CM1 (703) 305-5469

> POINT OF CONTACT: PAUL SCHULWITZ TECHNICAL INFO. SPECIALIST CM1 6B06 TEL. (703) 305-1954

	TYPE OF SEARCH:	VENDOR/COST (where applic.)
Searcher:	NA Sequences:	STN:
Phone:	AA Sequences:	DIALOG:
Location:	Structures:	Questel/Orbit:
Date Picked Up: ラ/25	Bibliographic:	DRLink:
Date Completed: 3/25	Litigation:	Lexis/Nexis:
Searcher Prep/Review:	Full text:	Sequence Sys.:
Clerical:	Patent Family:	WWW/Internet:
Online time:	Other:	Other (specify):

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301 IIMALITIPETIFOTVSMIPCIALGYTNSCLNPVLIAFLDRNFKRCFREFCIFTSSTIEQ 360
301 IIMALITIPETIFOTVSMIPCIALGYTNSCLNPVLIAFLDRNFKRCFREFCIFTSSTIEG 360
301 IIMALITIPETIFOTVSMIPCIALGYTNSCLNPVLIAFLDRNFKRCFREFCIFTSSTIEG 360
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121 LPPOSVAYLAGTWPPOTILCKIVISIDYYMMTSIFTLCTMSVDRYIAVCHPVKALDFRT 180
121 LPPOSVAYLAGTWPPOTILCKIVISIDYYMMTSIFTLCTMSVDRYIAVCHPVKALDFRT 180
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181 PRIAKLIVOVOVATLSSAIGLPVAFAATTKYRQGSIDCTLIPBHPTWYBKILKICVPIFA 240
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present sequence represents a mu opioid receptor protein. The specification also describes a transcription regulacory polypeptide and an opioid receptor-like polypeptide. Human mu opioid receptor-polymucleotides are useful as a source of probes and primers, which may be used as disgnostic tools to detect normal and abnormal DNA sequences in DNA derived from patients calls. They are also used as means for detecting and isolating other members of the polypeptide family and related polypeptides from a DNA library potentially containing such sequences. The polymorloctide is used for preparing microorganism can be useful for evaluating subtype-selective drugs.
                                         Novel nucleic acids encoding mu opioid receptor for expressing large quantities opioid receptors which are useful for acreening and evaluating subtype-selective drugs and as probes or primers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mu opiate receptor; hMOR; opiate agoniat; opiate antagoniat; drug abuse; analgesic.
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                                                                                                                         Example 1; Column 91-94; 86pp; English.
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ART6781

ART6781

D AAR76781 standard, Protein, 398 AA.

XX

AAR76781,

XX

AL 1.-DEC-1.995 (first entry)

XX

Mu opiate receptor.

XX

Mu opiate receptor.

XX

Arug abuse, analgesic.

XX

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Rettus sp.

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WOS520667-A1.

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03-AUG-1.995.
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181 PRIAKTIVNICHTISATGLPWIPATTKTROGSIDCTLTPSHPMYRENLKICYPTER 240
181 PRIAKTIVNICHTISATGLPWIPATTKTROGSIDCTLTPSHTTMFRILLKICYPTER 240
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121 LPPOSUNTIMOTMPPOTILCKIVISIDYTMMPTSIPTLCTMSVDRYIAVCHPVRALDPRT 180
122 LPPOSUNTIMOTMPPOTILCKIVISIDYTMMPTSIPTLCTMSVDRYIAVCHPVRALDPRT 180
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301 IIKALITIPBETIPQTVSWIPCLAGYTNSCLAPVLYAPLDBAPGCPRBFCIPTBGT360
301 IIKALITIPBETIPQTVSWIPCLAGYTNSCLAPVLAPLDBAPGCPRBFCIPTBGT360
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                                         A 165 bp fragment of the mouse daits opicid receptor was used to screen a rat brain cDNA labrary under low stringency conditions. Occess a positive of the included the sequence given in AAG99222, encoding mu opicid receptor, MOR-1 (AAR71964). MOR-1 was stably expressed in transfected (FOC cells.
                                                                                                                                                                                                                                                                                          1 MDSSTGPGNTSDCBPPLAQASCSP, RGSMLMLSHVDGNQSDPCGLARTGLGGNDSLCPQT 60
1 MDSSTGPGNTSDCSDPLAQASCSPARGANLSHVDGNGSDPCGLARTGLGGNDSLCPQT 60
1 MDSSTGPGNTSDCSDPLAQASCSPARGANLSHVDGNGSDPCGLARTGLGGNDSLCPQT 60
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Disclosure, Page 190-194; 266pp; English.
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93US-0120601.
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08-MAR-1993;
13-SEP-1993;
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New isolated mammalian opicid receptor protein used for the development of agents with pharmacological uses related to opicid receptors -
                                                                                                                                                                                                                                                                                                                                                                             The invention relates to a novel mammalian methadone-specific opioid receptor (AAV8049) sepecially isolated from Norway rate (Rattus operagicus). The rat coding sequence (AAZ91047) was isolated from genomic DNA PCR with the primers AAZ91048-291049. This sequence shows a comparative example and is the rat mu-opioid receptor. The novel receptor protein can be used for the development of agents with pharmacological uses related to the receptors e.g. psychotropic drugs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 GSPSWYTAITIMALYSIVCVVGLPGNPLVMYVIVRYTKMKTATNIYIPNLALADALATST 120
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                                                                                                                                                                                                    Civelli O, Bunzow JR, Grandy DK,
                                                                                                                                                                                                                                                                                                                                              Example 2; Fig 2; 26pp; English.
                                                                                                                                                               (UYOR-) UNIV OREGON HEALTH SCI.
                                                               13-OCT-1998; 98US-0170331.
                                                                                                    93US-0149093.
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                                                                                                  08-NOV-1993;
15-AUG-1997;
                     22-FBB-2000
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                                                                                                                                                                                                                                    New DNA encoding human mu opiate, receptor - used esp. for screening cpds. for activity as opiate agohists or antagonists
                                                                                                                                                                                                                                                                                                                                   hWOR CDNA was obtd. from a human cerebral cortical cDNA library strenned with fragments of a rat mu opiate receptor. The encoded protein showed homology to rat mu, delta and kappa opiate receptors (AAR76781-83).
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                                                                                                                                                       Johnson, Parelco AM, Uhl G, Wang J,
                                                                                            (USSH ) US DEPT HEALTH & HUMAN SERVICES. (USSH ) US SEC DEPT HEALTH.
                                                                                                                                                                                                                                                                                                Disclosure, Page 26-28, 49pp; Phyglish.
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                  30-JAN-1995, 95WO-US01144.
                                                       28-JAN-1994, 94US-0188275.
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301 IIKALITIBETPOOVSHHCIALOYTNSCLAVVLARIDBRFKKCRRSCIFTSTERG 36.
301 IIKALITIPETTOOVSHPCIALOTNSCLAVVLARIDBAYSCREAPERSTERG 36.
                         181 PRNAKIVMVCNMILSSAIGLPVMPMATTKYRQGSIDCTLTPSHPTWYWBNLLKICVPIPA 240
                                                                                                              241 FIMPILITYCYGLMILRLKEVRMLSGSKKKDRNLRRITRMYLVVVAVFIYCWTPIHIYV 300
181 PRNAKIVNVCNWILSSAIGLPVMPMATTKYRQGSIDCTLTPSHPTWYWENLLKICVPIPA 240
                                                                                    241 FIMPILIITVCYGLMILRLKSVRMLSGSKEKDRNLRRITRMVLVVVAVPIVCWTPIHIYV 300
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                                                                                                                                                                                                                                                        361 QNSTRVRONTREHPSTANTVDRTNHQLENLEARTAPLP 398
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The present sequence represents a murine mu-opioid receptor (MOR-1) capitor variant MOR-1. The specification describes 11 new exagt for splice variant MOR-1 gene, which combine to yield 15 novel splice variants of the MOR-1 gene. These splice variants are specificated for modulating second secon
301 IIKALITIPETTPOTVSWHPCIALGYTNSCLAPVLYAPLDENPKRCPREPCIPTSGTIEQ 360
301 IIKALITIPETTPOTVSWHPCIALGYTNSCLAPVLYAPLDENPKRCPREPCIPTSGTIEQ 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mu-opioid receptor; MOR-1; splice variant; morphine analgesia; opioid-mediated ingestive response; opioid activity; analgesic; gastrothrestinal motility; respiration; immune system; endocrine system; autonomous nervous system; peristalais regulator; body weight; neuroendocrine disorder; MOR-1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A murine mu-opioid receptor splice variant MOR-1.
                                                                                                                                                                   361 QNSTRVRONTREHPSTANTVDRINHOLENLEAETAPLP 398
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to a method of identifying a polymorphic receptor (e.g. a G-procein coupled receptor) having altered signalling, comprising co-transfecting a host cell with a reporter construct and an expression vector, in which the reporter construct and an expression vector, in which the reporter construct and an expression of a promoter operably linked to a reporter gene. The response element is a maintie of a signal induced by the receptor and the expression vector comprises a promoter operably linked to a candidate receptor containing a genetic polymorphism. A second host cell is co-transfected with the comprises of promoter operably linked to a candidate receptor containing a genetic polymorphism. A second host cell is co-transfected with the compriser construct and a negative control vector and the expression level of the reporter construct in the host cells is measured. An increased or decreased lavel of expression in the first host cell compared to the case of a standing and exceptors having alteration of alterations in their basal activity, for example, constitutively active receptors having altered drug construction in algentification of polymorphic or mutant receptors having altered drug constitutively active receptors identified are useful as tools for drug dentified the method of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Identifying polymorphic receptors having altered signalling, useful for e.g. detecting receptors with alterations in their basal activity, such as constitutively active receptors or receptors having silencing mutations.
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241 PIMPILLITYCYCLAILALKSKYRLGSKRORNLRRITRAWLYVAVIVVATPIHTY 300
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (NBWB-) NEW ENGLAND MEDICAL CENT HOSPITALS INC.
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                                                                                                                                                                                                                                                                        04-APR-2002. "HE.
28-SEP-2001, 2001MO-US42416.
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particularly by the deletion of an exon and/or insertion of a marker gene, e.g. the incompcin resistance gene, into the sequence. Especially the expression of current also altered in narvous tissue. The agents are addiction and/or prevention or treating severe pain (chronic or acute), drug addiction and/or prevention or treatment of transplant rejection is immunosuppressents). The method may isolate and identify powerful analyseits that lack morphine-like fide effects.
                                                                                                                                                                                                                                                                                                                                                                                                                            121 LPPQSVNYLMGTWPPGTILCKIVISIDYYNMPTSIPTLCTMSVDRYIAVCHPVKALDFRT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181 PRIAKIVNYCHWILGSAIGLPVMPHATTKYRQGSIDCTLTPSHPTWFWENLLKICVPIFA 240
181 PRIAKIVNOWALLSSAIGLEVMPHATTKYRQGSIDCTLTPSHPTWFWENLLKICVPIFA 240
181 PRIAKIVNOWALLSSAIGLEVMPHATTKYRQGSIDCTLTPSHFTWFWENLLKICVPIFA 240
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241 PIMPILIITYCYGLAILELKSYRALSGSKEKORNLRRITRAWLYNVAVYTYCATPHITY 300
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                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                Mu-opioid receptor, MOR-1; aplice variant; morphise analgesis; opioid activity; analgesic; opioid activity; analgesic; opioid activity; analgesic; effection; immune system; andercine apstem; attonomous nervous system; peristratist, regulátor; body weight; neuroendocarine disorder; MOR-18.
                                                                                                                                                                                                                                                                                 B; Indels 0;
                                                                                                                                                                                                                                  Query Match
97.2%; Score 2052; DB 19; Length 398;
Best Local Similarity 97.2%; Pred. No. 3.55-2.17.
Metches 397; Conservative 3; Mismatches 8; Indels 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A murine mu-opioid receptor splice variant MOR-18.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AX6880 Standard; Protein; 401 AA. AX6880 Standard; Protein; 401 AA. AX6880 Standard; Protein; 401 AA. AX AX6880; AAY6880; AAY6880; AAY6880; AAY6880; AAY6880; AMAY-2000 (first entry) SX Mu-opioid receptor splice variant mu-opioid receptor splice
                                                                                                                                                                                         Sequence 398 AA;
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                                                                                                                                                             121 LPOSUNYLAGTMPPOTILCKIVISIDYNMPTSIPTICTMSVDRYINVCHPVKALDPRT 180
121 LPOSUNYLAGTMPONILCKIVISIDYNMPTSIPTICTMSVDRYINVCHPVKALDPRT 180
                                                                                                                                                                                                                                                                                                                                                   181 PRNAKIVNVCNWILSBAIGLPVMPMATTKYRQGSIDCTLTPSHPTWYWENLLKICVFIFA 240
                                                                                                                                                                                                                                                                                                                                                                                   181 PRNAKIVNYCHWILSBAIGLPVMPMATTKYRGGSIDCTLTFSHPTWYWENLLKICVPIFA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241 PIMPVLIITVCYGLMILALKSVRMLSGSKEKDRNLRRITRMVLVVVAVPIVCMTPIHIYV 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301 IIKALITISHTPOTVSHIPCIALGYTNSCLAPVLYAPLDRAPKGCPREPCIPESSTIEQ 360
301 IIKALITISHTPOTVSHIPCIALGYTNSCLAPVLYAPLDBAPKGPREPCPISSTIEQ 360
                         Gapa
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                                                                                              1 MDSSTGPGNTSDCSDPLAGASCSPAPGSWLNLSHVDGNGSDPCGLNRTGLGGNDSLCPQT 60
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to identify agents for treatment of pain, drug addiction and
transplant rejection, lacking side effects of known opiatelis)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Dierich A, Kieffer BL, LeMeur M, Matthea HWD, Simonin PH,
Best Local Similarity 97.2%; Pred. No. 1.36-217;
Matches 387; Conservative 3; Mismatches 8; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wouse, mu opiate receptor; transgenic animal; mammal; exon, nervous tissue; pain; drug addiction; transplant emunouppressant; anaigestc; morphine; side effect.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361 QNSTRVRONTREHPSTANTVDRTNHOLENLEAETAPLP 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361 ONSARIRONTREHPSTANTVDRTNHQLENLEASTAPLP 398
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N-PSDB; AAV49252.
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the present sequence represents a murine mu-opioid receptor (MOR-1) capitor variant MOR-1a. The specification describes in ane axons for capitor variant MOR-1 gene, which combine to yield 15 novel splice variants of the MOR-1 gene. These splice variants are presented to the MOR-1 gene. These splice variants are presented to the MOR-1 gene. These splice variants are proposed for modulating morphine analyses and opioid-mediated ingestive responses. The MOR-1 polypeptide is used to streen compounds for opioid activity. The MOR-1 polypeptide is used to streen compounds for opioid activity. The MOR-1 polypeptide is used to streen compounds for opioid activity can tendomous mervous systems, e.g. regulators of perisalisis or integonists, sonists and iligands of MOR-1, as well as DNA vactors expressing MOR-1-emoduling intidate and the response antisens body weight. The leavel of MOR-1 cat is seen the distinct on the MOR-1 can be measured to disgnose MOR-1 related pharmacological abnormalities or measured to disgnose MOR-1 related pharmacological abnormalities or cannals with extra copies of the MOR-1 gene, or with endogenous alleles deleted, are used to study loss or gain of function phenotypes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New splice variants of the mu-opioid receptor, useful in screening for selective analgesics and for regulating morphine analgesia or body weight.
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                                                                                               Mu-opioid receptor; MOR-1; eplice variant; morphine analgesia; opioid-mediated ingestive response; opioid activity; analgesic; getrorineefinal motility; respiration; immune system; endocrine system; autonomous nervoul system; peristalsis regulator; body weight; neuroendocrine disorder; MOR-1A.
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94.91, Score 2004; DB 21; Length 390;
Best Local Similarity 97.21; Pred. No. 6.7e-212;
Matches 376; Conservative 4; Mismatches 7; Indels 0
                      A murine mu-opicid receptor splice variant MOR-1A.
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N-PSDB; AAZ60736.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence represents a murine mu-opioid receptor (MOR-1) capitor variant WAR-18. The apporticention describes 11 new exons for capitor variant WAR-18. The apporticention describes 11 new exons for the MOR-1 gene. These splice variants of control of the MOR-1 gene. These splice variants are processed to the MOR-1 gene. These splice variants are processed to the MOR-1 gene analgesia and opioid-meditated ingestive responses. The MOR-1 morphyspit de is used to screen compounds for opioid activity. Control opioid-meditated ingestive responses. The MOR-1 polypeptide is used to screen compounds for opioid activity. Control opioid activity is spliced to more generally agents that controlmous nervous systems, e.g. regulators of perimals, endocrine or antonnous merons antigenes of control opioid and ingents of MOR-1, as well as DNA vectors expressing MOR-1-encoding nucleic acids, or expenses antigenes to opioid activity and part of regulate morphine analgests and body wight. The level of MOR-1 related pharmacological abnormalities or number of animals with artra copies of the MOR-1 gene, or with endogenous alledes to control opices of the MOR-1 gene, or with endogenous alledes to the MOR-1 gene to th
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                                                                                                                                                                                                                                                       New splice vatignts of the mu-opioid receptor, useful in screening for selective analgésics and for regulating morphine analgests or body weight.
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181 PRIAKIVNCAMILESAIGLPVAPDATKYROGSIDCTLIPSHPWYMBYLLKICYPIPA 240
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ouery Match 95.3N, Score 2011, DB 21, Length 401; Best Locat Similarity 95.9N, Pred. No. 1.2e-212; Best Locat Similarity 75.5N, Pred. No. 1.2e-212; Indels 0, Gaps Matches 377; Conservative 7; Mismatches 9; Indels 0, Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MDSSTGPGNTSDCSDPLAQASCSPAPGSWLNLSHVDGNQSDPCGLNRTGLGGNDSLCPQT 60
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(SLOK ) SLOAN KETTERING INST CANCER RES.
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                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 9; Pig 30; 03pp; English.
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                                                                              Pasternak G, Pan Y,
                                                                                                                                                                  WPI, 2000-182402/16.
N-PSDB; AAZ60729.
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Matches 381, Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New splice variants of the mu-opioid receptor, useful in screening for sealective analgesics and for regulating morphine analgesia or body weight.
Mu-ogloid receptor; MOR-1; eplice variant; morphine analgesia; opioid-acidiscal ingestive response; opioid acrivity; analgesic; opioid-acrivity; analgesic; opioid-acrivity; analgesic; especials motility, respiration; immune system; endocrine system; acronomen nervous system; peristralsis regulator; body weight; neuroendocrine disorder; MOR-1P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A murine mu-opioid receptor splice variant MOR-1F.
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                                                                                                                                                                                           AAY68888 standard, Protein, 444 AA.
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N-PSDB; AAZ60734.
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Ouery Match 94.9%; Score 2004; DB 21; Length 444; Best Local Similarity 92.5%; Pred. No. 8.1e-212;

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New splice variants of the mu-opioid receptor, useful in screening for selective analgesics and for regulating morphine analgesia or body veight.
                                                                                                                                                                                                                                                                                                                                                                                                                                  121 LPFQSVNYLMGTWPFGNILCKIVISIDYYNMPTSIFTLCTMSVDRYIAVCHPVKALDFRT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181 PRIAKUNYCHWILSSAIGLPWFFMATTKYRQGSIDCTLTPSHPTWFMBLLKICVPIPA 240
181 PRIAKINYCHWILSSAIGLPWFFMATTKYRQGSIDCTLTPSHPTWFMBLLKICVPIPA 240
181 PRIAKINYCHWILSSAIGLWFRFWATTKYRQGSIDCTLTPSHPTWFMKTVKTCVPIFA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          241 PINPILLITYCYGLAILELKSYRALGGSKEKORALRAFITRANLYWYANPIYCYTPHHIYY 300
241 PINPILLITYCYGLAILELKSYRALGGSKEKORALRAFITRANLYWYAYOLYCYTPHHIYY 300
                                                                                                                                                                      61 GSPSHVTAITIMALYSIVCVVGLPGNPLVMYVIVRYTKMKTATNIYIPNLALADALATST 120
                                                                                                                                                                                                                                         61 GSPSMYTAITIMALYSIVCVVQLPGNPLVMYVIVRYTKMKTATNIYIPNLALADALATST 120
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                                                                                                                                                                                                                                                                                                                                                                     121 LPPOSVNYLMGTWPPGTILCKIVISIDYYNMPTSIPTLCTMSVDRYIAVCHPVKALDPRT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence represents a murine mu-opioid receptor (MOR-1) splice variant MOR-15 at The specification describes 11 new axons for the MOR-1 gene, which combine to yield 15 novel splice variants of
1 MBSTOPGRTSDCSDFLAOASCSPAPGSWLLISIYOCNOSDPCGLXRTCLGONDSLCPQT 60
1 MDSSADPGRTSDCSDPLAPAGSCSPAPGSWLLISIYOCNOSDPCGLXRTGLGOSHSLCPDT 60
1 MDSSADPGRTSDCSDPLAPAGSCSPAPGSWLLISIYOCNOSDPCGPYRTGLGOSHSLCPDT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mu-opioid receptor; MOR-1; aplice variant; morphise analgesia; opioid-mediated ingestive response; opioid-mediated ingestive response; opioid-mediate motility; respiration; immune system; endocrine system; autonomous nervous system; peristralsis regulator; body weight; neuroendocrine disorder; MOR-1B i.
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AX76886 standard; Protein; 391 AA.

AX76886 standard; Protein; 391 AA.

A murine mu-opioid receptor splice variant or opioid receptor; MCR-1; splice variant or opioid-mediated ingestive response; opioid-variants of the mu-opioid response; opioid-variants of the mu-opioid-variants of the mu-opioid-mediated response; opioid-variants of the mu-opioid-variants of the mu-op
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Complete variant MRR-10. The specification describes 11 new score for splice variant MRR-10. The specification describes 11 new scores for splice variants of the MOR-1 gene, which combine to yield 15 novel splice variants of the MOR-1 gene. These splice variants are pretential transfers for the MOR-1 gene. These splice variants of the MOR-1 splypping and point of the modern compounds for properties and specific mediated ingestive responses. The modulating morphine analyses and opioid-mediated ingestive responses. The modulating morphine analyses and opioid-mediated ingestive responses. The motion of the immune, endocrine of such compounds are potential analyses or more generally agents that arteonomy mervous systems. Fig. regulators of periosis that the compounds are preceding for MOR-1, as well as DNA vectors expressing MOR-1-encoding nucleic acide, or sequences antisense too washit. The laced of MOR-1, or tissue distribution of WoR-1 can be compared to disgnose MOR-1 related pharmacological abnormalities or number of deleted, are used to study loss or gain of function phenotypes.
                                                                                                                                                                                                 New splice variants of the mu-opicid receptor, useful in screening for selective analgesics and for regulating morphine analgesia or body weight.
                                                                      (SLOK ) SLOAN KETTERING INST CANCER RES.
                                                                                                                                                                                                                                                                                                                               Claim 7; Pig 3A; 83pp; English
                              16-JUL-1998; 98US-0092980.
                                                                                                                       Pasternak G, Pan Y,
                                                                                                                                                                  WPI; 2000-182402/16.
N-PSDB; AAZ60728.
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the MOR-1 gene. These splice variants are potential targets for computating morphine analgeais and optoid-mediated ingestive responses. Computating morphine analgeais and optoid-mediated ingestive responses. The MOR-1 polypeptide is used to acreen compounds for optoid activity. Such compounds are potential analgeais or more generally agents that care care transmisses that care arteromene nervous pyrenems, e.g. regulators of pritetaisls. Or Antegonists, agonists and ligands of MOR-1, as well as DNA vectors expressing MORA-1-encoding nucleic caids, or sequences entisense to compare and proper compared to the care of MOR-1 and body consists. This level of MOR-1 or tissue distribution of MOR-1 can body consumption. The level of MOR-1 related pharmacological abnormalities or nearured of distribution for MOR-1 and body compared of distributions of MOR-1 and particularly inherited discorders. Transgenic consumer of distributions for MOR-1 and MOR-1 
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121 LPPOSVNYLAGTWPPOTILCKIVISIDYNMPTSIFTLCTMSVDRYTAVCHPVKALDRFT 180
121 LPPOSVNYLAGTWPPOTILCKIVISIDYNMPTSIFTLCTMSVDRYTAVCHPVKALDRFT 180
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 GSPSWYTAITIMALYSIVCWGLPGNPLVMYVIVRYTRWKTATNIYIPNLALADALATST 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     241 PIMPVLIITVCYGLMILRLKSVRMLSGSKEKDRNLRRITRMVLVVVAVPIVCWTPIHIYV 300
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                                                                                                                                                                                                                                                                                                                                                                                                  Ouery Match 94.9%; Score 2003; DB 21; Length 391;
Best Local Similarity 97.4%; Pred. No. 8.78-212;
Matches 376; Conservative 3; Mismatches 7; Indels 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 MDSSTOPGNTSDCSDPLAQASCSPAPGSWLNLSHVDGNQSDPCGLNRTGLGGNDSLCPQT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mu-opioid receptor; MOR-1; splice variant; morphine analgesia; opioid-mediated ingestive response; opioid activity; analgesic; gastrointestinal motility; respiration; immune system; endocrine system; autonomous nervous system; peristalsis regulator; body weight; neuroendocrine disorder; MOR-1D.
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                                                                                                                                                                                                                                                                                                                                                          Sequence 391 AA;
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241 PIMPVLIITVCYGLMILRLKSVRMLSGSKEKDRNLRRITRAWLAVVAVFIVCMTPIHITV 300
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                                                                                                                                                                                                             61 GSPSMVTAITINALYSIVCVVGLFGNPLVMYVIVRYTYMKTATNIYIPNLALADALATST 120
                                                                                                                                                                                                                                                   61 GSPSMVTAITIMALYSIVCVVGLPGNPLVMYVIVRYTRAKTATNIYIPNLALADALATST 120
                                                                                                                                                                                                                                                                                                                        121 LPPOSVNYLMGTWPPGTILCKIVISIDYYNMPTSIPTLCTMSVDRYIAVCHPVKALDPRT 180
                                                                                                                                                                                                                                                                                                                                                        181 PRNAKIVNYCHWILSSAIGLPVMPMATTKYRQGSIDCTLTFSHPTWYWENLLKICVPIFA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                             301 IIKALITIPETTEQTVSWHFCIALGYTNSCLNPVLYAFLDENPKRCPREPCIPTSSTIEQ 360
Query Match

94.94; Score 2003; DB 21; Length 392;
Best Local Similarity 97.44; Pred. No. 8.7e-212;
Matches 376; Conservative 3; Mismatches 7; Indels 0; Gaps
                                                                                                                                              1 MDSSTGPGNTSDCSDPLAQASCSPAPGSWLNLSHVDGNQSDPCGLNRTGLGGNDSLCPQT 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361 ONSTRVRONTREHPSTANTVDRTNHO 386
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181 PRNAKIVNVCNWILSSAIGLPVWFMATTKYRQGSIDCTLTFSHPTWYWENLLKICVFIPA 240
                                                                                                                                           241 FIMPULIITVCYGLMILRLKSVRMLGGSKEKDRNLRRITRMVLVVVAVFIVCWTPIHIYV 300
                                                                                                                                                                                             301 IIKALITIPETTPOTVSWHPCIALGYTNSCLNPVLYAPLDENPKRCPREPCIPISSTIEQ 360
                                                                                                                                                                                                                         301 IIKALITIPETTPOTVSWHPCIALGYTNSCLNPVLYAPLDENPKRCPRBFCIPTSSTIEG 360
121 LPPQSVNYLMGTWPFGNILCKIVISIDYYNMPTSIPTLCTMSVDRYIAVCHPVKALDFRT 180
                                      181 PRNAKIVNVCNWILSBAIGLPVMPMATTKYRQGSIDCTLTPSHPTWYWENLLKICVPIPA 240
                                                                                                                 241 PIMPILIITVCYGLMILRLKSVRMLSGSKBRORNLRRITTRWYLVVVAVPIVCWTPIHIYV 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MM-opioid receptor; MOR-1; epilce variant; morphine analgesis; opioid-mediated ingestive response; opioid activity; analgesic; gastrointestinal motility; respiration; immune system; enfocrine system; autonomous narvous system; peristaalsis regulator; body weight; neuroendocatine disorder; MOR-1C.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-MAY-2000 (first entry)
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N-PSDB; AAZ60726.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present sequence represents a murine mu-opioid receptor (MOR-1) apice variant MOR-18 in The specification describes in new acons for the MOR-1 gene, which combine to yield 15 novel splice variants of the MOR-1 gene. These splice variants are percential trages for modulating morphine analyses and opioid-mediated ingestive responses. The MOR-1 polypeptide is used to screen compounds for opioid activity. Such compounds are potential analyses and opioid-mediated ingestive responses. The MOR-1 polypeptide is used to screen compounds for opioid activity. Such compounds are potential analyses for more generally agents that or affect gastrointestimal motility, respiration or the immuno, endocrine articomens mervous systems, e.g. regulates of periatals in a companies, and opioid activity and ingestive and ilgands of MOR-1, as well as DNA vectors expressing MOR-1 encoding nucleic scide, or sequence anticement to warping are used to require morphine analyses and body weight. The local of MOR-1 or tissue distribution of MOR-1 can be measured to disquese MOR-1 related pharmacological abnormalities or neutrondocrine disorders particularly imberiated disorders. Transgenic contains with extra copies of the MOR-1 gene, or with endogenous alleles and elected, are used to study loss or gain of function phenotypes.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New splice variants of the mu-opioid receptor, useful in screening for sealective analgesics and for regulating morphine analgesia or body weight.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ouery Match 94.9% Score 2003, DB 21, Length 409, Best Local Binilarity 97.4% Pred. No. 9.3e-211, Indels 0, Gaps Matches 376; Conservative 3; Mismatches 7; Indels 0, Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 MDSFTGPGNTSDCSDPLAQASCSPAPGSWLNLSHVDGNQSDPCGLARRTGLGGNDSLCPQT 60
1 MDSSADPQNLSDCSDPLAPACSSPAPGSHLNLSHVDGNQSDPCGPRTGLGGNSHSLCPQT 60
1 MDSSADPQNLSDCSDPLAPACSSPAPGSHLNLSHVDGNQSDPCGPRTGLGGNSHSLCPQT 60
                                                                                                               Mu-opioid receptor; MOR-1; splice variant; morphine analgesia; opioid ectrifty; analgesic; opioid ectrifty; analgesic; gastrointeerinth motility; respiration; immune system; endocrine system; endocrine system; autonomous nervous system; peristalsis regulator; body weight; neuroendocrine disorder; MOR-1B II.
                                                                           A murine mu-opioid receptor splice variant MOR-1B II.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (SLOK ) SLOAN KETTERING INST CANCER RES.
                                                                                                                                                                                                                                                                                                         /note= encoded by CGT
                                                                                                                                                                                                                                                                          Key Location/Qualifiters Misc-difference 199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 17; Pig 3C; 83pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US15974.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9808-0092980
                                    16-MAY-2000 (first entry)
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N-PSDB; AAZ60735.
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The present sequence represents a murine mu-opioid receptor (MOR-1).

C splice variant MOR-1C. The specification describes 11 new exons for the MOR-1 gene, which combine to yield 15 novel splice variants of the MOR-1 gene. These splice variants of the MOR-1 gene. These splice variants of the MOR-1 polypeptide is used to screen compounds for opioid activity. The MOR-1 polypeptide is used to screen compounds for opioid activity. The MOR-1 polypeptide is used to screen compounds for opioid activity. The MOR-1 polypeptide is used to screen compounds for opioid activity. The MOR-1 polypeptide is used to screen compounds for opioid activity. The MOR-1 polypeptide is used to screen compounds for opioid activity. The fact of actions are presented in the murine, endocrine can encompound nervous species, e.g. requisitors of perificalish.

C artsponding MOR-1-encoding muchaic caids, or sequence antisense to MOR-1 muchaic acids are used to requisite morphine analgeis and body weight. The level of MOR-1 or tissue distribution of MOR-1 can be measured to diagnose MOR-1 calted pharmacological abnormalities or consequences. Particularly inherited disorders. Transgenic
New splice variants of the mu-opioid receptor, useful in screening for selective analgesics and for regulating morphine analgesia of body weight
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121 LPPQSVNYLMCTWPPGTILCKIVISIDYYNWFTSIPTLCTMSVDRYIAVCHPVTALDPRT 180

61 GSPSMVTAITIMALYSIVCVVGLFGNFLVMYVIVRYTKWKTATNIYIFNLALADALATST 120

δ යි සි susceptibility of a subject to addictive disorder, pain

Claim 2, Pig 5, 134pp, English.

The present invention describes an isolated variant (V) of the human control of cold receptor (hWOR1) game with at least two variations AllsG, cirr, G24A, G779A or G92A, of the dequence of Genbank accession number (CC cirr, G24A, G779A or G92A, of the dequence of Genbank accession number (L2519) Determination of innessed or decreased susceptibility in a subject to at least one addictive more like opioid, cocains, of micrian barbiturate or seature psychoticulants and to pain is done addiction or addiction of the addiction or therefore in the addiction or addiction, diarribos, decreased immune response or addiction or approach addiction or addiction or addiction or addiction or addiction or approach addiction or addiction o

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Sequence 400 AA;

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animals with extra copies of the MOR-1 gene, or with endogenous alleles deleted, are used to study loss or gain of function phenotypes.
                                                                                                                                                                                                                                                                                                                                                                                                                        121 LPPOSUAYLAGTWPPGTILCKIVISIDYNAPTSIPTLCTMSVDRYIAVGHPYKALDPRT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             301 IIKALITIPETPOTVSKHPCIALOYTNSCLNPVLYAFLDRNFKRCPREPCIPISGIBC 360
301 IIKALITIPETPOTVSKHPCIALGYTNSCLNPVLYAFLDENFKRCPREPCIPISSTIEG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181 PRNAKIVAVCNWILSSAIGLPVMFWATTKYRQGSIOCTLTFSHPTWYWENLKICVFIFA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181 PRNAKIVNYCHWILGSAIGLPVMPMATTKYRQGSIDCTLTPSHPTWYWENLLKICVPIPA 240
                                                                                                                                                                                                                                                                                             1 MDSSTGPGNTSDCSDPLAQASCSPAPGSWLALSHVDGNQSDPCGLNRTGLGGNDSLCPQT 60
                                                                                                                                                                                                                                                                                                                                             Ouery Match
Best Local Similarity 97.4%; Pred. No. 16-211;
Matches 375, Congervative 3, Mismatches 7, Indels 0
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(ADRB-) ADVANCED RES & TECHNOLOGY INST.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361 QNBARIRQNTREHPSTANTVDRTNHQ 386
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09-JUL-1999, 99US-0113426.
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                                                                                                         Sequence 438 AA;
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181 RIPRNAKIINVCNWILSSAIGLEVWFWATTKYRQGSIDCTLIFSHPTWYWENLLKICVF1 240
                                                                                                                                                                                                                                                       299 YVIIKALITIPETTPOTVSWHPCIALGYTNSCLNPVLYAFLDENPKRCPREPCIPTSSTI 358
                                                                                                                                                                                                                                                                                                                            119 STLPPOSVNYLMCTWPPGTILCKIVISIDYYNMPTSIPTLCTMSVDRYIAVCHPVKALDP 178
                                                                                                                                                                        179 RTPRNAKIVNVCNWILSSAIGLPVMFWATTKYRQGSIDCTLTPSHPTWYWENLLKICVPI 238
                                                    1 MDSSTGPGNTSDCSDPLAQASCSPA - PGSWLNLSHVDGNQSDPCGLNRTGLGGNDSLCP 58
                                                                     Query Match

94.7%, Score 2000; DB 21; Length 400;
Best Local Similarity 93.8%; Pred. No. 1.9e-211;
Matches 375; Conservative 11; Mismatches 12; Indels 2;
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Copyright (c) 1993 - 2003 Compage Ltd.	32 625.5	29.6
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Scoring table: BLOSUM62	45 430	20.4
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Searched: 283224 seqs, 96134422 residues		
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ALIGNMENTS

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

2	Description	mu opioid receptor	mu opioid receptor	mu opioid receptor	mu opiate receptor	ъ	delta opioid recep		delta opioid recep	kappa opioid recep	delta opioid recep		kappa opioid recep		kappa opioid recep	G protein-coupled	orphan opioid rece	opioid receptor ho	kappa opioid recep	somatostatin recep	brain-specific som	somatostatin recep								
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_	1001
_	mu opioid receptor - rat
	C;Species: Rattus norvegicus (Norway rat)
_	C;Date: 26-Jul-1996 #sequence_revision 26-Jul-1996 #text_change 20-Jun-2000
_	С,Acceввion: 156517, 157951, A49680, 152314; 834593, A48799, 158154
_	RiBunzow, J.R.; Zhang, G.; Bouvier, C.; Saez, C.; Ronnekleiv, O.K.; Kelly, M.J.; Grand
_	G. Neurochen, 64, 14-24, 1995
	A, Title: Characterization and distribution of a cloned rat mu-opioid receptor.
	A; Reference number: 156517; MUID: 95096825; PMID: 7798908
	A;Accession: 156517
	A/Status: preliminary, translated from GB/EMBL/DDBJ
_	A;Molecule type: mRNA
	A/Residues: 1-398 <res></res>
	A,Cross-references: BMBL:U02083; NID:g403573; PIDN:AAA70049.1; PID:g403574
	R;Chen, Y.; Mestek, A.; Liu, J.; Hurley, J.A.; Yu, L.
	Mol. Pharmacol. 44, 8-12, 1993
	A.Title: Molecular cloning and functional expression of a mu-opioid receptor from rat
	A;Reference number: 157951; MUID:93341493; PMID:8393525
	A;Accession: 157951
	A/Status: preliminary, translated from GB/EMBL/DDBJ
	A; Molecule type: mRNA
	A/Residues: 1-398 <re2></re2>
	A;Cross-references: GB:L13069; NID:g348250; PIDN:AAA41630.1; PID:g348251
	Rispoler, C.M.; Hulmes, J.D.; Wang, J.B.; Johnson, B.; Corbett, M.; Luthin, D.R.; Uhl,
	J. Biol. Chem. 268, 26447-26451, 1993
	A:Title: Purification and partial amino acid sequence of a mu opioid receptor from rat
	A)Reference number: A49680; MUID:94075333; PMID:8253772
	A:Accession: A49680
	Asserting Designation
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	A: Experimental source: brain membranes
	A:NOTE: ABILIARY SETTING FIRM NOBI PACKDONE (NOBID:140841)
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	Ajrantence number: 152314; MOLD:95251604; PMLD://33926
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_	A,Molecule Cype: mkNA
	A.Residues: 101-340 (SED)
	A/Cross-references: GB:877863; NID:9998526
	A; Experimental source: Sprague Dawley, peritoneal macrophages
_	R;Fukuda, K.; Kato, S.; Mori, K.; Nishi, M.; Takeshima, H.
_	PBBS Lett, 327, 311-314, 1993
	A/Title: Primary structures and expression from cDNAs of wat opioid receptor delta- an
_	A/Reference number: 634592; MOID:93351652; FMID:8394245
	A A A CORESION: 845991
	A MOLECULE CYDE: MKNA
_	A; Residues: 1-244, V, 246-398 < FUK>
-	A;Cross-rerences: GB:DI6349; NID:g391866; FIDN:DAAO3632.1; FID:g391867

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#Holdecule type: mRNA sequestive not snown should be seen that the sequestion of the
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R.Gross-references EBBLU10561; NID:g555696; PIDN:AAB60683,1, PID/g565069
R.Rossi, G.C.; Pan, Y.X.; Brown, G.P.; Pasternak, G.W.
PEBB Lett. 1569, 132-136, 1395
A.Title: Antieense mapping the MOR-1 opioid receptor: evidence for alternative splitch; R.Reference number: 149300; MUID:95377399; PMID:7649256
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the nucleotide sequence was submitted to the EMBL Date Library, November 1995
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C;Koywords: alternative apticing; G protein-coupled receptor; glycoprotein; transmemb:
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                                                                                                                                                                                                                                                                 O, Gaps
                                                                                                                                                                                                    1 MDSSTGPGNTSDCSDPLAQASC8PAPGSWLNLSHVDGNQSDPCGLNRTGLGGNDSLCPQT 60
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Length 398
                                                                                                     1; Indels
      Ouery Match
Best Local Similarity 99.5%; Pred. No. 2.78-169;
Best Local Similarity 99.5%; Pred. No. 2.78-169;
Marches 396; Conservative 1; Mismatches 1;
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pecies: Mus musculus (house mouse)
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Rithompson, R.C.; Mansour, A.; Avaza, ...;
Reveron 11, 400-931, 1993

Nary 11, 110

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301 IIKALITIPETTPOTVS#HPCIALGYTNSCLMPVLXAPLDRNPKCPREPCTFG 360
301 IIKALITIPETTPOTVS#HPCIALGYTNSCLMPVLXAPLDRNPKCPREPCTFG 360
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1 MDSSTGRONTSDCSPPLAQASCSPARGSNLALSHVDGNOSDPOGLARTGLGGNDSLCPQT 60
1 MDSSTGRONTSDCSPPLAQASCSPARGSNLALSHVDGNOSDPOGLARTGLGGNDSLCPQT 60
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                                                                                                                                                                                                                               Status proliminary; translated from GB/EMBL/DDBJ
Molecula type: mRNA
Mesiduse: 1,244:144; 246-398 «MAN>
Cross-reference: (GB:120684; NID:9409149; PIDN:AAA41643.1; PID:g409150
Thompson: R.C.; Mansour, A.; AK11, H.; Watson, B.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ouery Match
100.04; Score 2111; DB 2; Length 398;
Best Local Similarity 100.04; Pred. No. 3.9s-170.
Makeches 399; Conservative 0; Mismatches 0; Indels 0;
             JAang, J.
roc. Natl. Acad. Sci. U.S.A. 90, 10230-10234, 1993
roc. Natl. woiste receptor: cDNA cioning and expression.
JTLitis in opiste receptor: AND 91991 MUID:94052137; PMID:8234282
JAccession: A48799
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subsolved receptor mu variant MORIA - human cipecides: Hono sapiess (man) Cipecides: Hono man military Cipecides (man) C
C;Genetics:
A;Gene GBB: 0PRM1
A;Cross-references: GBB:137216; OMIM:600018
A;Kpp position: 642-6425
A;Wap position: 642-6425
C;Superfamily: vertebrate rhodopsin
C;Keywords: G protein-coupled receptor; glycoprotein; transmembrane practic of protein-coupled receptor; glycoprotein; transmembrane Betautus predicted crivil.
P;107-132/Domain: transmembrane Betautus predicted crivil.
P;144-155/Domain: transmembrane Betautus predicted crivil.
P;282-287/Domain: transmembrane Aetatus predicted crivil.
P;282-347/Domain: transmembrane Aetatus predicted crivil.
P;281-347/Domain: transmembrane Aetatus predicted crivil.
P;281-347/Domain: transmembrane Aetatus predicted crivil.
P;31-314/Domain: transmembrane Aetatus predicted crivil.
P;31-314/Domain: transmembrane Aetatus predicted crivil.
P;31-314/Domain: transmembrane Aetatus predicted crivil.
P;31-313,44/A9/Bainding site: carbohydrate (Asn) (covalent) #status predicted
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121 STLPPQSVNYLMGTWPPOTILCKIVISIDYNWPTSIFTLCTMSVDRYLAVCHPVKALDP 180
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 94.7t, Score 1999; DB 2; Length 400; BB 85E Locas Similarity 93.8t, Pred. No. 1.1a-160; Machae 375; Conservative 11; Mismatches 12; Indels 2; Gaps
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Best Local Similarity 92.3%; Pred. No. 2.1e-155;
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161 EQQNSTRIRQNTRDHPSTANTVDRTNHQLENLEARTAPLP 400
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A;Molecule type: mRNA
A;Residues: 387-392 < BAN>
C;Superfamily: vertebrate rhodopsin
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Cippedies; Home septeme (mori protein, opioid receptor mu
Cippedies; Homo septeme (mori protein, opioid receptor mu
Cippedies; Homo septeme (mori per cevision 02-Jul-1996 fitext_change 19-May-2000
Cipces 02-Jul-1996 fisequence revision 1956
Altheir fire human un opioid receptor; modulation of functional desensitization by calci
Altheir fire human un 15653, MulDi-95198115; PHID:7891175
Altheir fire number: 15653, MulDi-95198115; PHID:7891175
Altheir fire calci sequence not shown; translated from GB/EMBL/DDBJ
Altheir fire 1-400 eARBS
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Residues: 1-50, NY, 2-2-33, VY, 235-400 cMAN>
Residues: 1-50, NY, 22-233, VY, 235-400 cMAN>
Residues: 1-50, NY, 22-23, 1994
Mang. J.B.; Johnson, P. S.; Pereico, A.M.; Hawkins, A.L.; Griffin, C.A.; Uhl, G.R.
185 Lett. 339, 217-22, 1994
Tillie: Human mu opiace receptor. cDNA and genomic clones, pharmacologic characterizati
Reference number: 641075, MUID:94139928; PMID:7905839
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                                                                                                                                                                                                                                                                                                                            121 LPPOSUNYLAGTWPPOTILCKIVISIQYYNWPTSIPTICTMSVDRYIAVGAPUAKLDPRT 180
121 LPPOSUNYLAGTWPPOMILCKIVISIQYYNWPTSIPTICTMSVDRYIAVGAPUAKLERT 180
121 LPPOSUNYLAGTWPPOMILCKIVISIDYYNWPTSIPTICTMSVDRYIAVGAPUAKLERT 180
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181 PRIAKIIVIVCIMILESAIGLEVMPKATIKTKOGSIDCTLIPSHPTWENLLKICVPIPA 240
181 PRIAKIIVIVCIMILESAIGLEVMPKATIKTKOGSIDCTLIPSHPTWPKILLKICVPIPA 240
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                                                                                                                                                                                                   7, Indels 0, Gaps
            Ouery Match

97.71, Score 2063, DB 2, Length 398;
Best Local Similarity 97.54, Pred, No. 4.3e-16,
Matches 388, Conservative 3, Mismatches 7, Indels

Matches
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Status: nucleic acid sequence not shown
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Status: translated from GB/EMBL/DDBJ
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Residues: 1-50, N',52-400 <WA2>
Barc, L.A.; Manseon, E.; Yang, D.
BS. Lett. 354, 213-216, 1994
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A,Residues: 387-400 <BAR>
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13, Indele

Matches 362, Conservative 15, Mismatches

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Lassian optoid receptor - human
Cipsecies in Home saptens (man)
Cipsecies in 186321 138657
Rixcapp, R.J.; Malttynska, B.; Pang, L.; Xiaoping, L.; Nguyen, M.; Bantoro, G.; Varge
Rixcapp, R.J.; Malttynska, B.; Pang, L.; Xiaoping, L.; Nguyen, M.; Bantoro, G.; Varge
A.; Title: Identification of a human delta optoid receptor: Cloning and expression.
A.; Reference number: 138532; MUID:94260835; PMID:8201839
A.; Steus: preliminary; translated from GB/EMBL/DDBJ
A.; Reference EMBL.(19082; NID:9497313; PIDN:AAA18789.1; PID:9497314
R; Simonin, F.; Befort, K.; Gaveriaur-Kaff C.; Matthes, H.; Nappey, V.; Lannes, B.; M
A.; Title: The human delta-optoid receptor: genomic organization, CDNA cloning, functio
A.; Actaves preliminary; translated from GB/EMBL/DDBJ
A.; Mensiques preliminary
A.; Residues: 12657; MUID:95107267; PMID:7808419
A.; Residues: 126, CC.; 28-39, AR.; 42-447, A.; 371-372 cGIN>
A.; Residues: 126, CC.; 28-39, AR.; 42-447, A.; 371-372 cGIN>
A.; Coest-forms
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Cippectes: Num amedium (house mouse)
Ciptes 26-May-1994 sequence revision 26-May-1994 #text_change 24-Nov-1999
C.Accession: B48227; S73807; A4665; S3674
R:Yanda, K.; Raynor, K.; Kong, H.; Bredar, C.D.; Takeda, J.; Reisine, T.; Bell, G.I.
Proc. Natl, Acad. SCI. U.S.A. 90, 6738-6740, 1993
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A;Cross=references: GDB:137215; ONIM:165195
A;Nap position: 1p36.1-1p34.3
C;Superfamily: vertebrate rhodopsin
                                                             360 QONSTRVRONTRE 372
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Comment: This protein mediates the effects of morphine and the related drugs, and is the
Superfamily; vertebrate rhodopsin
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Accession: J80087
                                                                                                                                                                                                                                                                                                     6.1 PTGSPBMITAITHALYSIVCVVGLPGNPLVMYVIVRYTKWKTATNIYIFNLALADALAT 120
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121 STLPPOSVAYLAGTWPOTILCKIVIBIDYNMPTSIPTLCTMSVDRYIAVCHPVALDP 180
121 STLPPOSVAYLAGTWPOTILCKIVIBIDYNMPTSIPTLCTMSVDRYIAVCHPVALDP 180
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181 RTPRNAKILYICVMLISSAIGLWYMPTATKYROGSIDCTLTPSHPTWRWLLKICVPI 240
181 RTPRNAKILYICVMLISSAIGLWYMPTATKYROGSIDCTLTPSHPTWWRMLKICVPI 240
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62 BPRNYTAITIMALYSTYVOOLOGAILWNGWYRTHGKRATYLYPNIALADALATSTL 105
68 BROITABLIALYSVICVOOLOGAILWNGWYRTHGKRATYLYPNIALADALATSTL 105
                                                                                                                                                                                                                                        59 OTGSPSMVTAITIMALYSIVCVVGLPGNPLVMYVIVRYTKMKTATMIYIPNLALADALAT 118
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P/21,37/Binding site: carbohydrate (Asn) (covalent) #status predicted
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Rixie, G.; Meng, F.; Mansour, A.; Thompson, R.C.; Hoversten, M.T.; Goldstein, A.; Wat Proc. Natl. Acad. 8ci. U.S.A. 91, 3779-3783, 1994
A.fittle Frimary structure and functional expression of a guinea pig kappa opioid (dy A.fleference number: A55259; MUID:94224825; PMID:8170987
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Title: Molecular cloning and expression of a rat delta opicid receptor from
Reference number: 156571
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Cippedes: Ratus morveguence (Norway rat)
Ciptes 10-Dec-1939 sequence revision 10-Nov-1995 #text_change 'Pq-Jun-2000
Ciptes 10-Dec-1939 sequence revision 10-Nov-1995 #text_change 'Pq-Jun-2000
Ciptes 10-Dec-1939 sequence revision 10-Nov-1995 #text_change 'Pq-Jun-2000
Ciptes 10-Dec-1939 sequence revision Nov-1995 #text_change in Page Lett 137, 311-31, 4993
FRBS Lett 327, 311-31, 4993
FRBS Lett 3993
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            ternate names: dynosphin receptor
ecias: Cavia porcellus (guinea)
te: 06-reb-195; Hecquence_tevision 06-Peb-1995 #text_change 24-Nov-1999
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; Cross-references: EMBL: U00475; NID:9403488; PIDN:AAA19939.1; PID:9514211
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S4.1%; Score 1141.5; DB 2; Length 380;
Beet Local Similarity 60.3%; Pred. No. 1.6e-88; Indels 19; Gaps Matches 226; Conservative 55; Mismatches 75; Indels 19; Gaps
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A,Molecules type: mRNA
A,Residuse: 1.38 o.XIES
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C,Superfamily: vertebrate rhodopsin
C,Superfamily: vertebrate rhodopsin
C,Keywords: transmembrane protein
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Residuce: 1-772 - CFITA>
Croos-references: GB:D16348; NID:g391864; PIDN:BAA03951.1; PID:g391865
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Airocadues 6.373 < 6227.3
Airocadues 6.373 < 6227.3
Airocadues extracted from Will backbone (NCBIN:138618, NCBIP:138618)
Infedier, Bu.L. Befort, K.; deveriaux-Ruff, C.; Airth, C.G.
Infelier, The delta-opioid receptor: 1803 1803 1993
Airoca Natl. Acad. 8ci. U.S.A. 89, 12048-12052, 1992
Airocadues submer: 836745, WUID:93101664; PMID:1334555
Cloning and functional comparison of kappa and delta opioid receptore from mous one unaber A4827, MUID:99342064, PMID:8993575
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A.Reaidues 1-199 'N'. 191, 'GAVO', 207-208,'ACSSSPVQLVL',210-372 <KIW>
A.Cross-references: BMBL:Lo6132
C.Nopperfamily: vertebrate sthodopsin
C.Nopperfamily: vertebrate sthodopsin receptor; glycoprotein; phosphoprotein; transmembra
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Matches 226; Conservative 39; Mismatches 91; Indela 9; Gaps
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Residues 1-372 - VASA
Cross references (BBLI1064; NID:9348246; PIDN:AAA37520.1; PID:9348247
Kilefer, B.L.; Bagfort, K., Gaveriaux Ruff, C., Hirth, C.G.
Disserence number: Bagfort, M., Pebruary 1993
Reference number: 937807
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δ 8 RESULT 9 A55259 kappa opioid receptor - guinea pig

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Cuppes opioid receptor - rat
Cippescies: Ratura norvegicus (Norvey rat)
Cippescies: Ratura norvegicus (Norvey rat)
Cipate: 10-Dec-1991 #sequence revision 19-Oct-1995 #text_change 20-Jum-2000 ...
Cipate: 10-Dec-1993 #sequence revision 19-Oct-1995 #text_change 20-Jum-2000 ...
Rivishi, M.; Pakeshima, H.; Pukuda, K.; Kato, S.; Nori, K.
RESS Lett. 310, 77-60, 1993
A; Titla cONA cloning and pharmacological characterization of an opioid receptor with A; Reference number: S36143; MUID:93380375; PMID:8396539
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A yes reference in CDB:13263; OMIN:165396
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 66 VTAITIMALYBIVCVVGLPGNPLVMYNIVRYTHMKTATNIYIPNLALADALATBTLPPQS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           126 UNYLMOTWPPOTILCKIVISIDYYNMPTBIPTLCTMSVDRYIAVCHPVKALDPRTPRNAK 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            107 AKYLMETWPPGELLCKAVLSIDYNMPTSIFTLTMSVDRYIAVCHPVKALDPRTPAKK 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    186 IVNVCNWILSBAIGLPVMFWATTKYROGSIDCTLTFSHPTWYWENLLKICVFIPAPIMPI 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9 NTSD---CSDPLAQASCSPAPCSMLNLSHVDCNQSDPCCLNRTQLGGNDSLCPQTGSPSM 65
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               78, Indels 35, Gaps
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le type: nRNA
18e1 1, 19. 3-380 «ZHU»
references: GB:LJ7362, NID:g722617, PIDN:AAA63906.1, PID:g722618
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le Cypes an RNM>
references: GBL156130; NID:g598184; PIDN:AAA63646.1; PID:g598185
...s 6. 20.-207, 1995
                                                                                                                                                                                                                                                        Ouery Match 54.0% Score 1139.5; DB 2; Length 372; Ber Local Similarity 59.7% Pred No. 2.3-6.89; Metches 244, Conservative 38; Mismatches 78; Indels 35;
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AjGane: dori
Cisuperfamily: vertebrate rhodopsin
Cisaywordanig protein-couplad receptor; transmembrane protein
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Algedues references: GBL11065; NID:9348249; PIDN:AA39363.1; PID:9348249
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R.Nishil M. J. Takenshim, H.; Mori, M.; Nakagawara, K.; Takeuchi, T.
R.Nishil M. J. Takenshim, H.; Mori, M.; Nakagawara, K.; Takeuchi, T.
B.Nishil M. J. Takenshim, Commun. 205, 1353-1357, 1994
A.; P. Line Erructure and chromosomal mapping of genes for the mouse kappa-opioid, recept.
A.; Reference number: JC2434; MUID:95100967; FMID:7802669
A.; A.; Readdues: J. J80 CMIS.
A.; Readdues: 1.380 CMIS.
A.; Commun. JC2434; MUID:95100967; FMID:7802669
A;Title: Clouing and functional comparison of kappa and delta opioid receptors from mu A;Reference number: A48227; WUID:93342064; PMID:8393575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C. Superfamily: vertebrate rhodopsin
C. Superfamily: brain; G protein-coupled receptor; glycoprotein; phosphoprotein; transmem
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             236 VIPVLIIIVCYTLMILRLKSVRLLSGSREKDRNLRRITKLVLVWAVFIICWTPIHIFIL 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           185 KIVNVCNWILSBAIGLPVMPMATTKYRQ--GBIDCTLTPSHPTW-YWENLLKICVPIFAF 241
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53.3%; Score 1126; DB 2; Length 380;
Best Local Similarity 59.3%; Pred: No 3.2-87;
Matches 227; Conservative 54; Mismatches 60; Indels 22; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7 PGNTSDCSDPLAQASCSPAPGSWL-NLSHVDGNQSDPCGLARTGLGGNDSLCPQTG-SPS 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12 pdpr--cs---psaclipnsswrpnwaesbsngs------vgsedoglesahispa 57
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C,Superfamily: vertebrate rhodopsin
C,Keywords: receptor
        A.Retutus preliminary
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A.Residueu 1.900 CMB.
A.Residueu 1.900 CMB.
A.Residueu 1.900 CMB.
A.Residueu 1.900 CMB.
R.Hinal, H. 1700 T. 17 Katao, Y.; Haekawa, K.; Nakamura, B.; Onogi, T.; Kaneko, B.; Bat
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JCCOS-FEGERCAS: 021.22356, NID:9425188; PIDN:AAA11496.1; PID:9425189

ROOMEN P. 1846, G. 18.35.96, 1954-9585, 1993

ROOMEN P. 1846, G. 18.35.96, 1954-9585, 1993

ROOMEN P. 1846, G. 18.35.96, 1954-9585, 1993

ROOMEN P. 1846, G. 18.35.96, MUD:94052210; PMID:8234341
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Cibbecies: who misculius (house mouse)
Cibtes 26-Hay-1994 Resequence revision 26-Hay-1994 Rtext_change 21-Jan-2000
CiAccession: A48227, UC4138
R.Yasouda, X., Raynor, X.; Kong, H., Breder, C.D.; Takeda, J.; Reisine, T.; Bell, G.I.
Proc. Natl. Acad. 861, U.S.N. 90, 6736-6740, 1993
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A/Residues 1-17pg. MBS>
A/Cross-references: BMBL:U00442, NID:g403486; PIDN:AAA18261.1, PID:g403487
C. Superfamily: vertebrate hidodops.
C. Keyvords: Q protesh:-coupled receptor, transmembrane protesin
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53.5%, Score 1129, DB 2, Length 380,
best Local Similarity 59.4%, Pered. No. 180-87,
Matches 281, Conservative 56, Mismatches 76, Indels 24,
Matches 281, Conservative 56, Mismatches 76,
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Molecule Crype: mRM, 1314.267.4MAN>. Hole, R.; Law, P.Y.; Loh, H.H. Herdtues: 1.311.1L., 1314.367.4MAN>. Hole, R.; Law, P.Y.; Loh, H.H. Herdte, S.R.; Lin, X.; Elde, R.; Law, P.Y.; Loh, H.H. Herdte, S.R.; Lin, Res. (20). Estain Res. 27, 37-44.1994. Tatifier a feolation of a novel CDNA encoding a putative membrane receptor with high hore. Reference number: 152654; MUID:95182817; PMID:7877452.
                               icross-references EMBL:001319 NID:g487964; PIDN:AAA1025.1; PID:g487965

Horse: the authors translated the codon GCG for residue 348 as Ser

Hang, JB.; Johnson, P.S.; Imai, Y.; Persico, A.M.; Ozenberger, B.A.; Eppler, C.M.;

ESS Lett. 348, 73-79, 1994

ESS Lett. 348, 73-79, 1994

TITLE: GDNA cloning of an orphan opiate receptor gene femily member and its splice

Nederence number; 845701; MID:94289559; PMID:802588
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46.34; Score 977, DB 2; Length 367;
Best Local Similarity 52.24; Prefel No. 1.1e-74;
Metches 201; Conservative 46; Mismetches 110; Indele 28;
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Species: Rattus norvegicus (Norvay rat)
Date: 26-Jul-1996 Racquence ravision 26-Jul-1996 #text_change 20-Jun-2000
Accession: 155520; 84239; 846339; 846335; 8453701; 152554
Lachowicz, J. B., Bann 1:, Monsman, F.J.
Lachowicz, J. B., Bann 1:, Monsman, F.J.
Title: Wolseular cioning of a novel G protein-coupled receptor related to the opiate
Accession: 156520, MUID:95096849; PMID:7798930
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Ouery Match
Best Local Similarity 59.0%; Prace: No. 1.98-86;
Best Local Similarity 59.0%; Prace: No. 1.98-86;
Marches 256; Conservative 53; Mismacches 62; Indels 22;
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Copyright (c) 1993 - 2003 Compugen Ltd.
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Maximum DB 86q length: 2000000000
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PRT; 398 AA.

STANDARD

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SwiggProt_40:*

Database :

SUMMARIES

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Pijiši Ok. 10.1 FEE-1999. 10.1 FEE-1999. 10.1 FEE-1999. 10.1 FEE-1999. 10.1 TAXID AR RECURS OF PRINCES OF	1064; 062846; 06 1 (Rel. 26, Crea 1 (Rel. 40, Last 1 (Rel.)	IN TOWN N.A. IN THE SEASO FOR	N.A. 10, 11, 11, 11, 11, 12, 13, 14, 16, 16, 17, 18, 17, 18, 18, 18, 18, 18	Figirace RROW N.A. TRAIN-Sprague Dawley, TISBU BELLINE-94059560, Pubhede824 Thompson N.C., Mansour A., A. Cloning and pharmacological receptor.', deuron 11:901-911(1993). [6] REGURNCR PROW N.A. TISBUE-BELLIN REDLINE-92446380, Pubhed-818
	P31535; Q64 01-PEB-1994 01-PEB-1994 16-OCT-2001 Mu-type opi OPRNI OR R Rattus north Eukaryota, Mammalia, 11	SECUENCE PR MEDLINE-BIAM MEDLINE-BIAM Primary of delta-and fella-and (2) SEGUENCE FR TISSUES FRE MEDLINE-BIAM MEDLINE-BIAM MAND J'B.	SEQUENCE PR SEQUENCE Brain MEDLINE-91 Chen Y., Me Molecular from rat brann Mol. Pharma Mol. Pharma Mol. Pharma Mol. Pharma SEGUENCE PR STRAIN-Spre Bunzow J.R.	GECUENCE PR STRAINESPER MEDLINESPE Thompson R. "Cloning at receptor." [6] Neuron 11:5 [6] SEQUENCE PF SEQUENCE PF

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1D OPRN MOUSE STANDARD, PRT; 398 AA.

TO PROVE 1956 (Rel. 32, Created)

DT 01-NOV-1995 (Rel. 32, Last sequence update)

DT 01-NOV-1995 (Rel. 36, Last annotation update)

DT 15-UUL-1998 (Rel. 36, Last annotation update)

DY 15-UUL-1998 (Rel. 36, Last annotation update)

Mustryce policid receptor (MOR-1).

GN Mustrycell Mestoon (MOR-1).

DS Margorell Mestoon (Chordate) Creatists; Vertebrata; Butelecetomi; Margorell Mestoon (Chordate) (Released Mustryce) (Mestoon (Chordate) (Mordate) (Mustryce) (Mustryce
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 191 PRNAKIVNYCNWILSSAIGLPVMFWATTKYRQGSIDCTLTF8HPTWYWENLLKICVFIFA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241 PIMPVLIITVCYGLMILRLKSVRMLSGSKENDRNLRRITRMVLVVVAVPIVCMTPIHIYV 300
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Proc. Natl. Acad. Sci. U.S.A. 91:9081-9085(1994).
[2]
SEQUENCE FROM N.A.
TISSUESE FROM N.A.
MEDLINE-95377399; Pubmed=7649256;
MEDLINE-95377399; Pubmed=7649256;
MAROSSI G.C., Pant Y.X. Brown G.P., Pasternak G.W.;
Anticanne mapping the MOR-1 opioid receptor: evidence for alternative splicing and a novel morphine-6 beta-glucuronide
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STRAIN-BALB/C; TISBUS-Brain;
BUDLINES-218104; PubMed=7797593;
Kaufman D.L., Keith D.E., Anton B., Tian J., Magendzo K.,
237 237 P -> G (IN RBP. 6).
245 245 V -> I (IN RBP. 3, 4 AND 7).
387 387 31 IERLB -> KIVLP (IN RBP. 6).
399 AA, 44494 MM, 9C916DB7C1C33743 CRC64).
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PBBS Lett. 369:192-196(1995).
    CONFLICT
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C. FUNCTION: INHIBITS NEWFORANSHITTER RELEASE BY REDUCING CALCIUM CALCIUM COURTRY AND INTERASING POTASSIUM ION CONDUCTANCE. RECEPTOR FOR BETA-ENDORPHIN.

C. FOR BETA-ENDORPHIN.

C. SUBCELLULAR LOCATION: Integral sembrane proced.

C. TISSUE SPECIFICITY: BRAIN 318 EXPRESSED IN THE CREBERAL CORTEX, CAUDATE PUTAMEN, NOTINGS SEPTAL NUCLEI; THALAMUS, HIPPOCAMPRA, AND MARBULA. NOT DETECTED IN CERREBILLUM.

C. THIS BRAIN AND MARBULA. NOT DETECTED IN CERREBILLUM.

C. THIS BRAIS-PROT OF PAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.

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680URNČE OF 356-391 PROM N.A.
MEDLINE-53172211 PEDMEND-331554;
2.Simpariah A. Simon T., Hoellt V.,
"Cloning and expression of ap isoform of the rat mu opioid receptor (Cloning and expression of ap isoform of the rat mu opioid receptor reverse which differs in agonast induced desensitization from revolut.")
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MEDLINE-95231654; PubMed-7731926;
MEDLINE-95231654; PubMed-77319926;
Genql Hugh H., Roy G., Ramakriehnan S., Blde R., Loh H.H.;
Complementeryapha cloning of a mu-opioid receptor from rat
peritorial macrophages.;
Biochem. Biophys. Res. Commun. 209:563-574(1995).
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EXTRACELLULAR (POTENTIAL)
7 (POTENTIAL).
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BY SIMILARITY.
PALMITATE (POTENTIAL)
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        rat brain.";
Neurochem. 62:2099-2105(1994).
                                                                                         SEQUENCE OF 101-340 PROM N.A.
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TISSUEBERIA,
HINDLINE-SSISSIS, PubMed-7891175,
Heatek A. Jr., Hurley J.H., Bye L.S., Campbell A.D., Chen Y., Tian M.,
Liu J., Schulman H., Yu L.,
Tithe Juman Hun opticid receptor: modulation of functional
desensitiation by calcium/calmodulin-dependent protein kinase and
181 PRINKI WWYCWILBSAIGLPVMPMATTYFRQGSIDCTLTFSHPTWYMBNLLKICVPIFA 240
                                                                                                                                                                                     241 PIMPVLIITVCYGLMILRLKSVRMLSGSKEKDRNLRRITRMYLVVVAVPIVCWTPIHIYV 300
                                                                                                                                                                                                                                                                                             301 IIKALITIPETTPOTVS#HPCIALGYTNSCLNPUJAPLDENPKRCPREFCIPSESTEG 360
301 IIKALITIPETFGQTVS#HPCIALGYTNSCLNPUJAPLDENPKRCPREFCTPSESTEG 360
                                                                                                                              241 PIMPILITYCYGLMILRLKSVRMLSGSKBKORNLRRITRMVLVVVAVPIVCWTPIHIYV 300
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MEDITALS 99324134; PubMed-1939393;
MID CR., SORI I., WENG Z.;
The mw opiace receptor as a candidate gene for pain: polymorphisms, relations in expression, nociception, and oppare xesponses.";
proc. Natl. Acad. Sci. U.S.A. 96:7752-7755 (1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TESUR-Brain,
HEDLINE-94139929; PubMed-7905839;
Heng J.-B., Johnson P.S., Persico A.M., Hawkins A.L., Griffin C.A.,
Heng J.-B., Johnson P.S., Persico A.M., Hawkins A.L., Griffin C.A.,
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Montayota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi;
Mammalia, Butharia, Primates; Catarrhini, Hominidae, Homo.
NCBL_TaxID=9606;
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PS5377, 012910, O9UNS7, QOUCZ4,
01-UNY-1994 (Rel. 25, Created)
15-ML-1998 (Rel. 26, Leat sequence update)
15-GCT-2001 (Rel. 46, Leat sequence update)
Mu-type optoid receptor (MOR-1).
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. Neurosci. 15:2396-2406(1995).
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Newman D., Tran T., Lee D.8., Wen C., Xia Y., Lusis A.J.,
Byans C.J.;
"Characteritation of the murine mu opioid receptor gene.";
J. Biol. Chem. 270:15871-158811995"

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- PUNCTION: INHIBITS NEWDORTANNENTER RELEASE BY REDUCING CALCIUM
- TON CURRENTS AND INFREASING POTABSIUM ION CONDUCTANCE. RECEPTOR
- SUBCRELLIAR, LOCATION: Integral membrane process.
- SUBCRELLIAR, LOCATION: Integral membrane process.
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39 N-LINKED (GLCNAC. .) (POTENTIAL)
38 N-LINKED (GLCNAC. .) (POTENTIAL)
46 N-LINKED (GLCNAC. .) (POTENTIAL)
42 C -> W (IN RBP. 3).
44421 MW; DPELC758E2DA1978 CRC64,
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PRINTS; PRODOLI 7tm 1, 1.
PROSITE, PRODOLI O GPROTEIN RECEP PL 1, 1.
G-PROSITE, PSSOAGA; G-PROTEIN RECEP PL 3, 1.
G-PROSITE, PSSOAGA; G-PROTEIN RECEP PL 3, 1.
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EXTRACELLULAR
7 (POTENTIAL).

CYTOPLASHIC (POTENTIAL).

BY SIMILARITY.
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EXTRACELLULAR (POTENTIAL).
1 (POTENTIAL).
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EMBL, U10589, AAB60673.1, JOINED.
EMBL, U10589, AAB60673.1, JOINED.
EMBL, U10569, AAB60673.1, JOINED.
EMBL, U10580, AAAB6073.1, JOINED.
EMBL, U19380, AAAB6879.1;
EMBL, U19380, AAA86879.1;
INCO, MGI, MGI, ODFM.
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Best Local Bimilarity 97.5
Matches 388; Conservative
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398 AA,
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TISSUE-Striatum,
Miler G.M., Madras B.K.;
Miller G.M., Miller B.M., Mi
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OPRM MACHOU

ID OPRM MACHOU

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OPPM MACHOU

IS -JUN-2002 (Rel. 41, Created)

DT 15-JUN-2002 (Rel. 41, Last sequence update)

T15-JUN-2002 (Rel. 41, Last sequence update)

DE MU-LYPE opioid receptor (MOR-1).

MACHOU MACHOUR (Rel. 41, Last sequence update)

OC Entry OR MACHOUR (Rel. 41, Last sequence update)

OC Entry OR MACHOUR (Release macaque)

OC Cercopithecinae Macaca.

OC Cercopithecinae Macaca.

OC Cercopithecinae Macaca.

OC Cercopithecinae Macaca.

IN MAILE GM. M. MACHOU SPINARTER RILEASE BY REDUCTION (CC CALCIUM INSURED MACHOUR CALCIUM INSURED MACHOUR (ALPAGE) MACHO
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241 PAPIMPILITYCYGLMILRIKSYRHISGSKEKORNIRRITRWYLVVANPIYGWPIHI 300
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301 YVIIKALITIPETTPOTVSWHPCIALOYTNSCLIVVLYAPLDBNRFRCFRRFCIPTSSNI 360
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Best Local Similarity 93.8; Pred. No. 1.1e-119; Indele 2; Gaps Matches 375; Conservative 11; Mismatches 12; Indele 2; Gaps
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                    OF THE POPULATION)
40 40 N--D (IN 104 OF THE POPULATI

147 147 5 --C (RARB POLYMORPHISM).

7 FTI dev WR. 20952.

260 260 R--H (RARB POLYMORPHISM).

51 51 D--N (IM RBF. 1).

520 207 M--Y (IN RBF. 1).

6 207 207 M--Y (IN RBF. 1).

6 204 234 L--Y (IN RBF. 1).

6 400 AA, 44779 MM; 1DABBEBC9APP6F66 CRC64;
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                                                                                                                                                                                                                                                                                                           Bergen A.M., Kokoszka J., Peterson R., Long J.C., Virkkunen M.,
Linnolia M., Osidam D., J., Mandan D., W., Osiola Respectation with alcohol
Apparation of the second series of the second secon
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LELINEED (GLCNAC. . ) (POTENTIAL).
N-LINKED (GLCNAC. . ) (POTENTIAL).
LENLEAETAPLP -> VRS (IN 180PORM MORIA)
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Pfan; PRO0017, Tem j. 1.
PRANTS, PRO0017, GFCRRHODOPSN.
PROSITTS, PRO0017, GFCRRHODOPSN.
PROSITTS; PRO0187, GFROTEN, RECEP Pl. 1; 1.
PROSITTS; PROFINI RECEP Pl. 2; 1.
G-procein coupled receptor; Transmembrane, Olycoprotein;
Phomphorylation; Lipoprotein; Palmitate; Alternative splicing;
Polymorphiam.
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CTOPLEASIC (FOTERTIAL).
2 (FOTERTIAL).
3 (FOTERTIAL).
5 (FOTERTIAL).
4 (FOTERTIAL).
4 (FOTERTIAL).
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EXTRACELLULAR (POTENTIAL)
7 (POTENTIAL).
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BY SIMILARITY.
PALMITATE (POTENTIAL).
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RMEL, L23011, AAA73880.1,
RMEL, U1269, AA860354.1,
Genev, HGNC, 8156, AA84318.1,
MIK, 600018,
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                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE BRAIN COREX, MACHAGE BELT447; MULTANGH M.P.; MULTANGH M.P.; PLDMed-9817447; PLDMed-9817447; PLDMed-9817447; PLDMED-188-9903285; PLDMed-9817447; MULTANGH M.P.; MULTA
                                                                                                                                                              8us scrofa (Pig).
Sus scrofa (Pig).
Mammalia, Eutheria, Cetartiodactyla, Suina, Suidae, Sus.
NCBL_TaxID=9823;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               92.6%; Score 1954.5; DB 1; Length 401; 92.0%; Pred. No. 7.2e-117; tive 13; Mismatches 16; Indeleg. 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Transmembrane; Glycoprotein,
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EXTRACELLULAR (POTENTIAL).

(POTENTIAL)
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01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
15-JUL-1999 (Rel. 36, Last annotation update)
Nu-rype opioid receptor (MOR-1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              49 NW 1
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Best Local Similarity 92.04
Matches 369; Conservative
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SEQUENCE
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    ume by non-profit institutions se long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to licensesis-sib.ch).
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12 12 N-LINEBO (GLCHAC...) (POTBNTIAL)
13 3 N-LINEBO (GLCHAC...) (POTBNTIAL)
40 40 N-LINEBO (GLCHAC...) (POTBNTIAL)
48 48 N-LINEBO (GLCHAC...) (POTBNTIAL)
40 40 N-LINEBO (GLCHAC...) (POTBNTIAL)
40 4022 Mft, GGRAIR7847179DD3 CRC64;
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                                                                                                                                            EMBL, AF266024; AAP97249.1,
InterPro, IPRO0275; GPCR_Rhodpen.
InterPro, IPRO02176, GPCR_Rhodpen.
PROSTER; PRO03177 GPCRENDODSN.
PROSTER; PRO03177 GPCRENDODSN.
PROSTER; PRO03177 GPCRENDODSN.
PROSTER; PRO03177 GPCREND RECEP_PL.1; 1.
G-profen coupled receptor; Transmemensen Olycoprotein; Phosphorytein, Logic Extraction, Logic Extraction, Palmittere.
DOWN.
1 66 EXTRACTION (POTENTIAL).
1 7 66 EXTRACTION (POTENTIAL).
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EXTRACELLULAR (POTENTIAL).
3 (POTENTIAL).
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CYTOPLASMIC (POTENTIAL).
BY SIMILARITY.
PALMITATE (POTENTIAL).
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Best Local Similarity 92.8
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                                                                                                                                                                                         15-701-1995 (Rel. 31, Created)
15-701-1998 (Rel. 36, Last sequence update)
15-701-1998 (Rel. 14, Last sequence update)
15-7014-1999 (Rel. 14, Last sequence update)
15-7014-1999 (Sel. 14, Last senocation update)
15-7014-1999 (Sel. 14, Last sequence (DOR-1).
16-7014-1999 (Sel. 14, Last sequence (DOR-1).
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ike W.R., Yamamura H.I.
receptor: cloning and
                                                                                                                      SXTRACELLULAR (POTENTIAL).
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TISSUB-Brain cortex, and Striatum,
MEDLINE-94260835; PubMed-8201839;
Knapp R.J. Malatynaka E., Rang L., 11 X., Babin B.,
Knapp R.J. Warga B.V. Hruby V.J., Roceke W.R., Ya
"Identification of a human delta opioid receptor: c
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Life Sci. 54:PL463-PL469(1994)
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TISRUELS.Exidetum.
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MEDLINES.2010561; PubMed=10581406;
Chopgitalbvill I., Andria M.L., Villa P.S., Hiller J.M., Simon B.J.;
Chopgitalbvill I., Andria M.L., Villa P.S., Hiller J.M., Simon B.J.;
Choracterization of the receptor expressed in mammalian cells.";
chracterization of the receptor expressed in mammalian cells.";
In PUNCTION: INHIBITS NEUROTRANSMITTER RELEASE BY REDUCING CALCIUM
ION CURRENTS AND INCREASING POASSIUM ION CONDUCTANCE. RECEPTOR
PRESTA-ENDORPHIN.
ION CURRENTS AND INCREASING POASSIUM CONDUCTANCE.
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ISSUELLATIVE INCLUENCE TO FAMILY I OF G-PROTEIN COUPLED RECEPTORS.
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Bukaryota, Metazos, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Cetartiodactyla, Ruminantia, Pecora, Bovoides
Bovides, Bovinse, Bos.
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361 IEOONSARIRONTRDHPSTANTVDRTNHOLENLEAETAPLP 401
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15-JU-1999 (Rel. 38 Leat sequence update)
15-JUN-2002 (Rel. 31 Leat amoration update)
Nn-type opioid receptor (MOR-1).
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MEDLINESSIOLGE1, Pubmed=1334555;
MEDLINESSIOLGE1, Pubmed=1334555;
MERIER B.L., Befort K., Gaveriaux-Ruff C., Hirth C.G.;
The delta-opioid receptor: isolation of a CDNA by expression cloning and phenacological characterization.";
and phenacological characterization.";
proc. Natl. Acad. Sci. U.S.A. 89:12048-12052 (1992).
                                                                                                           75 YSIVCYVOLPGNPLVNYVIVRYTKOKTATÄYIPNLALADALATSTLPPOSVNYLKGTWP 134
76 YSIVCTVOLLGNVLVMPCITVRYTKOKTATNIYIPNLALADALATSTLPPOSAKTLAEFWP 115
56 YSIVCTVOLLGNVLVMPCITVRYTKOKTATNIYIPNLALADALATSTLPPOSAKTLAEFWP 115
                                                                                                                                                                                     135 PGTILCKIVISIDYTANFISITTCTMSVDRYIAVCHPVRALDPRTPRUAKIVNVCNMIL 194
116 PGZILCKAVISIDYTNMFTSIPTLCTMSVDRYIAVCHPVRALDPRTPRUAKIVNVCNMIL 175
116 PGZILCKAVISIDYTNMFTSIPTLTMSVDRYIAVCHPVRALDPRTPRAAKIJNICINVL 175
                                                                                                                                                                                                                                                                 255 MILRIKGVRMLGGGKEKORNLRRITRWULVVVAVPIVCWTPIHIYVIIKALITIP-ETTP 313
236 MILRIRGVRILGGGKSKGREKRITRWULVVVARVVARVHIHIVIIWTVDIDRRDPL 295
237 MILRIRGVRILGGGKSKGREKRITRWULVVVARVVARVHIHIVIIWTVDIDRRDPL 295
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                                      15 DPLAQASCSPAPGSWLNLSHVDGNQSDPCGLNRTGLGGNDSLCPQTGSPSWYTAITIMAL 74
                                                                          2 BPAPBAGABLOPPLPANASDAYPSACPSAGANASGPPGARS-----ASSLALAIATAL 55
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MEDIANCE STATES PLUMMED-8197421;
MEDIANCE STATES PLUMMED-8197421;
Characterization and mapping of a delta opioid receptor clone from NG108-15 cells.";
Proc. West. Pharmacol. Soc. 36:299-306(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18SUB-Brain;
|BDLINE=3334064; PubMed=8393575;
'sguda K., Raynox K., Kong H., Breder C.D., Takeda J., Reisine T.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ii G.i.
Cloning and functional comparison of kappa and delta opioid
species from mouse brain.";
roc. Natl. Acad. Sci. U.S.A. 90:6736-6740(1993)
  Matches 223; Conservative 40; Mismatches 96; Indels
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9.0-CT-1993 (Rel. 27, Created)

01-CCT-1993 (Rel. 27, Last sequence update)

15-DEC-1998 (Rel. 37, Last annotation update)

Delta-type opioid receptor (DOR-1) (KS6) (MSL-2).
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N-LINKED (GLCNAC. . .) (POTENTIAL)
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CTYOPLASHIC (POTENTIAL).
2 (POTENTIAL).
ENTRACELLULAR (POTENTIAL).
3 (POTENTIAL).
CTYOPLASHIC (POTENTIAL).
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Submitted (FEB-1998), to the EMBL/GenBank/DDBJ databases.
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348 348 A -> P(1N REF. 1).

370 370 A19 90487298A8AB4 CRC64,
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Best Local Similarity
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76 SIVCVVOLPGNPLVMYVIVRYTKMKTATNIYIPNLALADALATSTLPPOSVNYLMGTWPP 135
                                                         57 SAVCAVGLIGNVLVMPGIVRYTKLKTATNIYIFNLALADALATSTLPPGSAKYLMBTWPP 116
                                                                                                                                                                                   136 GTILCKIVISIDYNMPTSIPTLCTNSYDRYIAVCHPVKALDPRPRAKTVAVCKWILE 195
117 GELICKWISDYNMPTSIPTLYMSYDRYIAVCHPVKALDPRTPAKKLINITIWA 176
                                                                                                                                                                                                                                                                                                                                                                              196 SAIGLPVMPMATTKYRQGSIDCTLTFSHPTWYWENLLKICVFIFAFIMPILIITVCYGLM 255
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237 LIRLSKRIKLEGGSKEKDSELRITRAVLVVVGAFVVCARPHFVVYMTVOTIRREDEV 296
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SEQUENCE OF 8-172 PROM N.A.
BRELINE-94021364; PubMed-8415697;
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BRELINE-94021364; PubMed-8415697;
RRELINE-9402101 SAPPERSION and chromosomal localization of the delta opiate receptor gene.
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CYTOPLASMIC (POTENTIAL).

6 (POTENTIAL).
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(POTENTIAL).

CYTOPLASMIC (POTENTIAL).
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(POTENTIAL).
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372 AA; 40561 MW; BC3B3BBD2852D3F9 CRC64;
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EMBL, L07271; -; NOT ANNOTATED_CDS
EMBL, L11064; AAA3752.1; -.
EMBL, 86535; AAA1609.1; -.
EMBL, 866181; AAB28546.1; -.
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SUBJURICE FROM N.A.

SECRETALINE-S4124825; PubMedeal 10987;

XX GETALINE-S4124825; PubMedeal 10987;

XX GOLD GATE A. MARKSON N.A. Thompson R.C., Hoversten M.T.,

XX GOLD GATE A. MARKSON N.A. Thompson R.C., Hoversten M.T.,

XX GOLD GATE A. MARKSON N.A. Thompson R.C., Hoversten M.T.,

XX GOLD GATE A. MARKSON N.A. THOMPSON N.C., Hoversten M.T.,

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YAND
                                                                                                                                                                                                                                                                                                                                                                                                           Cavia porcellus (Guinea pig).
Cavia porcellus (Guinea pig).
Mammalia; Butheria; Rodentia; Hystricognathi; Caviidae; Cavia.
RCB__maxia_buthati;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMEL, U04092, AAA67171.1,
IncerPor, IRRO00251, GPCR_Rehodpan.
IncerPor, IRRO00321, GPCR_aecretin.
PEAN, PRO0012, TAT 1, 1.
PROFFER, PRO00137, GPCRHODOPSN.
PROSITE, PSGO0327, GPROTEIN RECEP P1 1, 1.
G-procein coupled receptor; Transmembrane, Glycoprotein, Phosphorylation, Lopprotein, Pages P1 2, 1.
SERVANNIN STANSMENT PAGES P1 3, 1.
SERVE P1 3, 1.
SERVANNIN STANSMENT PAGES P1 3, 1.
SERVANNIN STANSME
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01-F83-1995 (Rel. 31, Created)
01-F83-1995 (Rel. 31, Last sequence update)
01-B0V-1997 (Rel. 35, Last annotation update)
Kappe-type opioid receptor (KOR-1).
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Tue Mar 25 10:00:42 2003

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                                                                             SEQUENCE FROM N.A.
FORTHINGSPERGE DEVINOR TESSUR-Brain)
MEDLINE-84122112, PubMed=7519274,
MOOG M.E., Noal M.A., Farmeworth U.S., Tao O.;
Polants and expression of a delta-opioid receptor from rat
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S4.0%; Score 1139.5; DB 1; Length 372;
Best Local Similarity 59.7%; Pred. No. 1.9e-65; Xinda, 8.35; Gaps
Matches 224; Conservative 38; Mismatches 78; Inda, 8.35; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9 NTSD---CSDPLAOASCSPAPGSWLNLSHVDGNQSDPCGLNRTGLGGNDSLCPQTGSPSM 65
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                                                                                                                                                                                                                                                                                                        J. Neurosci. Res. 37:714-719(1994).

-I. POUCTION: IMPLISTS NEEDENCRANSHITTER RELEASE BY REDUCING CALCIUM
ION CURRENTS AND INCREASING POTASSIUM ION CONDUCTANCE. HIGHLY
-ISTRESCREIGCTIVE. RECEPTOR POR ENERPHALINE.
-ISTRESCREIGCTIVER LOCATION: Integral membrane protein.
-I. SUBCELLUIAR LOCATION: Integral membrane protein.
-I. SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
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7 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

N-LINED (GLCNAC. ...) (POTENTIAL).

N-LINED (GLCNAC. ...) (POTENTIAL).
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Result, D16448; BAA0385..1;

R RHS, 100475; AAA19939.1;

R RPR, 531997; BA349939.1;

R RPR, 531997; BA349939.1;

R RPR, FROOOD17 Ten.1 .1.

R RAGATTR; PSS00427; GPCRRNODPBN.

R RPSTTR; PSS0423; GPCRRNODPBN.

R RPSTTR; PSS0423; GPCRRNODPBN.

R PROSTTR; PSS0424; GPCRRNONPBN.

R PROSTTR; PSS0426; GPRCTENTN RECEP Pl 1; 1.

R PROSTTR; PSS0426; GPRCTENTN RECEP Pl 2; 1.

R PROSTTR; PSS0426; GPRCTENTN RECEP Pl 2; 1.

R PROSTTR; PSS0426; GPRCTENTN RECEP Pl 2; 1.

R POPOLEIN COUPLE TENSEE Pl 2; 1.

R PROSTTR; PSS0426; GPRCTENTN RECEP Pl 2; 1.

R POPOLEIN COUPLE TENSE RECEP Pl 2; 1.

R PROSTTR; PSS0426; GPRCTENTN RECEP Pl 2; 1.

R PROSTTR; PSS0426; GPRCTENTN RECEP Pl 2; 1.

R POPOLEIN COUPLE TENSE RECEP PL 3; 1.

R POPOLEIN C
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PALMITATE (POTENTIAL)
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3 (POTENTIAL).
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     PBBS Lett. 327:311-314(1993).
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Bukaryota; Metazos; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Euteria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI_TaxiD=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WEDLINE-93351652; PubMed-8394245;
Pukuda K., Kato B., Mori K., Nishi M., Takeshima H.,
Perlamy structures and expression from cDNAs of rat opioid receptor
delta- and mu-subtypes."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ouery Match 54.1%, Score 1141.5; DB 1, Length 380, Best Local Similarity 60.3%, Pred. No. 1.4e-67, Merches 266, Conservative 55, Mismatches 75, Indele 19, Gaps
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                                                                                                                                                                                                                                                                                                                                                                                     6 (POTENTIAL).

BATACELLULAR (POTENTIAL).

CTOPLASHIC POTENTIAL).

RYSHILARITY.

RALIARITY (POTENTIAL).

N'LINERD (GLCASC...) (POTENTIAL).

N'LINERD (GLCASC...) (POTENTIAL).

N'LINERD (GLCASC...) (POTENTIAL).

N'LINERD (GLCASC...) (POTENTIAL).

N' 4PP0538340BBRA623 CRC64;
                                                                                                  EXTRACELLULAR (POTENTIAL).
3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
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                                                                                                                                                                                                                               4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                    (POTENTIAL) .
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53.7%; Score 1133; DB 1; Length 380;
Beet Local Similarity 59.6%; Pred. No. Se-65;
Matches 229; Conservative 55; Mismatches 76; Indels 24; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 7 PONTSDCSDPLAQASCSPAPGS-WL-NLSHVDGNQSDPCGLNRTGLGGNDS-LCPQTGSP 63
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29 39 99 N-LINKED (GLCNAC. . . ) (POTENTIAL).
2 2 E -> D (IN REP. 2 AND 3).
380 AA; 42659 MM; 3D3899D77P048660 CRC64;
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IncarPor, IRRO0276; GPCR_Rhodpsn.
IncarPor, IRRO0276; GPCR_Rhodpsn.
PRINTS PRO0301; 7tm 1; 1.
PRINTS PRO0301; GPCRHODORSN.
PROSITE; PS00217; G PROTEIN RECEP_FL_1; 1.
PROSITE; PS00227; G_PROTEIN_RECEP_FL_2; 1.
G-procein coupled receptor; Transmembrane; Glycoprotein; Deprocein coupled receptor; Transmembrane; Glycoprotein; Deprocein; Palmittate.
Phosphorylation; Lippprotein; Palmittate.
Phosphorylation; Lippprotein; Palmittate.
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CYTOPLASMIC (POTENTIAL).
EXTRACELULIAR (POTENTIAL).
3 (POTENTIAL).
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EXTRACELLULAR (POTENTIAL)
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7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
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CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
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                                                                                                                                                                                                                     EMBL, U1.053, AAX-0985, 1: --
EMBL, U1.7961, AAX-01.8.1; --
EMBL, U1.7961, AAX-01.8.1; --
EMBL, U1.7621, AAX-01.8.1; --
EMBL, U1.6660, AAX-01.8.1; --
EMBL, U1.6660, AAX-01.8.1; --
Geney, RORC, B1.54; OPRIL.
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PEDLINE-SEIJAGOI, PUDMeda-7868844;
Ehu J., Chen C., Xue J.-C., Kunspull S., Deriel J.K., Liu-Chen L.-Y.;
Ruu J., Chen C., Xue J.-C., Kunspull S., Deriel J.K., Liu-Chen L.-Y.;
PCloning of a human kappe oploid receptor from the brain.";
Life Sci. Seil-Ellol-PLOVI13951.
                                         246 LIITVCYGLMILRLKSVRMLAGSKEKORNLARITRAVLVVVAVPIVOWTPHITVVIKÄL 305
227 LIITVCYGLALLRLEGSKEKORSKRORSLRRTRAVLVVVGARVVCAMPHIFVITWT 286
227 LIITVCYGLALLRLEGSKEKORSLRRTRAVLVVVGARVVCAMPHIFVITWT 286
                                                                                                                                                                                            287 UDLINREDPLAYAALHICIALGYANSSLAPVLYAPLDBNPKACPROLCRAPCGGGEPGSLR 346
                                                                                                                                                                306 ITI-PETTPQTVSWHPCIALGYTNSCLNPVLYAPLDENPKRCPREPCIPTSSTIEGGNST 364
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HEDLINE-55350200; PubMed=7624159;
HEDLINE-55350200; PubMed=7624159;
HEDLINE W. Gaveriaus-Ruff C., Befort K., Lannes B., Micheletti G.,
Matted M.-G., Charton G., Blach B., Kieffer B.,
Kappe-Opioid receptor in humann: cDNA and genomic cloning,
chromosomal assignment, functional avgression, pharmacology, and
expression pattern in the central narrous system.";
proc. Natl. Acad. Sci. U.S.A. 92:7006-7010(1995):
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00-PEB-1995 (Rel. 31, Late sequence update)
00-PEB-1995 (Rel. 31, Late sequence update)
Kappe-type opioid receptor (KOR-1).
Copra-type opioid receptor (KOR-1).
Copra ospiens (Human).
Blastyote, Meszoa, Chordata, Craniata, Vertebrata; Euteleostomi;
Mommalia, Eutheria, Primates; Catarrhini, Hominidae, Homo.
Copra of the copra
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MEDLINE-$4138050, PubMed-8060124;
MEDLINE-$4138050, PubMed-8060124;
MEDISOR B., Bare L.A., Yang D.;
*Isolation of a human kappa opioid receptor CDNA from placenta.";
Biocham. Blophys. Res. Commun. 202:1431-1437(1994).
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J. Blob. Chem. 269125966-25969(1994).
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                                                                                                                                                                                                                                                                                           365 RVRONTREHPSTANT 379
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OPRK HUMAN
ID OPRK HUMAN
AC P41145;
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115 OSAVLAGNEPGDULCKIVISIDYYNNPTSIPTITMSVDRIJACHPVKALDPRFDK 174
115 OSAVLAGNEPGDULCKIVISIDYYNNPTSIPTITMSVDRIJACHPVKALDPRFDK 174
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53.5% Score 1129, DB 1, Length 380,
BBSE Local Similarity 59.4%, Pred. No. 6, 9-6-6,
Matches 228, Conservative 56, Mismatches 76, Indels 24, Gaps
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POTENTIAL).
OPLASMIC (POTENTIAL).
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345 345 C -> Y (IN REP. 3).
380 AA; 42688 MW; 107PBEDB09886F92 CRC64;
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EXTRACELLULAR (POTENTIAL).
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EXTRACELLULAR (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Rattus norvegicus (Rat).

Rukatus norvegicus (Rat).

Rukatus yorosi Metasos; Chordata, Çfanista, Vertebrata, Euteleostomi,

Mammalis, Eutheris, Rodentis, Rodentis, Rigiurognathi, Muridae, Murinae, Rattus.

NCBI_TaxiD=10116;
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FREALINE 9780575; Publed 8395539;
Nishi W., Takeshima H., Divida K., Kato S., Mori K.,
Nishi W., Takeshima H., Divida K., Kato S., Mori K.,
Nishi A., Takeshima H., Divida K., Kato S., Mori K.,
Freepor VIII high and pharmecological characterization of an opioid
receptor viin high affinities for Kappa-subtype-selective ligands.;
FRES Lett. 30179931.
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STRAIN-SEPROND N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-Brain,
BLDINE-94059008, PubMed-8240267,
Chen Y., Mettek A., Liu J., Yu L.;
Molecular cloning of a ret kappa opioid receptor reveals sequence
studilarities to the mu and delta opioid receptors.";
siochem ... 7 35s 62s 62s 628 1993).
                                                                                                                                                                                                                                                                                                                                                                   10.1 FBE-1994 (RME). 28, Created)
01.FBE-1994 (RME). 28, Last sequence update)
01.NOV-1397 (Rel. 28), Last sequence update)
MADPA-Fype optical receptor (RME-1).
02.PRAT OR RORED.
355 QSTSRVR-NTVQDPAYLRDIDGM 377
                                                                                                                                                                                                                                                                                             STANDARD,
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296 VEALGSTBHSTAALSBYYFCIALGYTNSSLNPVLYAFLDENPKRÇFRDFCFPIKMRMERQ 355
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25 25 N-LINKED (GLCANC...) (POTENTIAL).
39 39 N-LINKED (GLCANC...) (POTENTIAL).
211 211 8 -> L (IN REP. 2 AND 3).
231 231 P -> V (IN REP. 2 AND 3).
380 AA; 42652 NW; PAAPC947D4545318 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ouery Match 53.34; Score 1126; DB 1; Length 380; Bett Local Similarity 59.34; Pred. No. 1.4e-64; Marches 22, Conservative 54; Mismatches 80; Indels 22
                                                                                                                                                                                                                                      PRINTS; PRO0217, GPCRANDODEN.
PROSTTE, PRO0237, GPCRANDODEN.
PROSTTE, PRO0237, G PROTEIN RECEP P1 1; 1.
PROSTTE, PRO0223, GPROTEIN RECEP P1 2; 1.
PROSTTE, PROOFEST, GRANDEN RECEP P1 2; 1.
PROPER OF TRENBMENDIANE, GLYCOPICEIN; PROPRICE PROPERTY.
PROPERTY OF THE PROPERTY 
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EXTRACELULAR (POTENTIAL),
1 (POTENTIAL),
CYTOPLASHIC (POTENTIAL),
2 (POTENTIAL),
EXTRACELULAR (POTENTIAL).
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CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
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CYTOPLASMIC (POTENTIAL).
BY SIMILARITY.
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ENEL, 677962, AAB31130.2, JOINED.
ENEL, 977669, AAB31130.2, JOINED.
ENEL, 977669, AAB31130.2, JOINED.
ENEL, 831111, ANOTATED_CDS.
FRIY, A4827, A4627, Opril.
INCEPTO, ISRO0076, GCR. Rhodpan.
INCEPTO, ISRO0031, GCR. Recretin.
Fram, PF00001; 7Fm_1, 1.
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OPRX_RAT
ID OPRX_RAT
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CONFLICT
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MEDURNE-92231661, PubMed=7731933;
MEDLINE-92231661, PubMed=7731933;
LOH H.C., Lu S., Augustin L.B., Peleheim R.P., Chen H.C.,
Loh H.K., Well L.N.,
"Cloning and promoter mapping of mouse kappa opioid receptor gene.";
"Cloning and promoter mapping of mouse kappa opioid receptor gene.";
        295 LVBALGSTSHSTAVLSSYYPCIALGYTHSSLNPVLYAPLDENPKRCPRDFCPPIKARMER 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NEUROIGMUNDI, 62:113-117(1995)
PRUFCION INTHIBITEN RENORTRANSMITTER RELEASE BY REDUCTING CALCIUM OF UNIVELON INTHIBITEN RENORTRANSMITTER RELEASE BY REDUCTING RECEPTOR PROPERTIES. MAY DELAY A ROLE IN AROUSEL AND REGULATION OF AUTONOMICA AND NEUROEMOCRINE FUNCTIONS.
BECCELLULAR COCATION: Integral membrane protesin.
- TISSUE REPECTACLY: BRAIN (NEOCONTEX, HIPPOCAMPUS, ANTOBALA, HEDIAL HABRAULA, HYPOTHALANUS, LOCUS CERULEUS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -1- BIMILARITY: BELONGS TO PAMILY 1 OF G-PROTEIN COUPLED RECEPTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     [68UR-Brain,
SDLINE-93342064, PubMed-8393575,
Boude K., Raynor K., Kong H., Breder C.D., Takeda J., Reisine T.,
sll G.I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus (Mouse).
Marayota, Metasoa; Chordata; Cranista; Vertebrata; Buteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Mus
(*) TexiD=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE-951009677 PubMed-1802669.
Nishi H., Takashima H., Hori M., Nakagawara K.I., Takeuchi T., )
Seructura and chromosomal mapping of genes for the mouse
Seructura and chromosomal mapping of genes for the mouse
Spape opioid receptor and an opioid receptor homologue (HOR-C).",
Siochem. Stophys. Res. Commun. 205:1353-1357(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. MEDINES—7499487, Bisenstein T.K., Babkowski S.M., Zhu J., Liu-Chen L.Y., Bisenstein T.K., Adler M.W., Rogers T.J.; "Sequence of kappa-opioid receptor CDNA in the R1.1 thymoma cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      11 G.I.;
Choning and functional comparison of kappa and delta opioid
approxe from mouse brain.";
coc. Natl. Acad. Sci. U.S.A. 90:6736-6740(1993).
                                                                                                                                                                                                                                                                                                   PRESENCE STANDARD; PRT; 380 AA. PD155A-
PD155A-
PD155A-
PD1-FBE-1994 (Red. 26, Leas sequence update)
01-FBE-1994 (Red. 26, Leas sequence update)
ACCT-2001 (Red. 40, Leas semucation update)
KARDE-type opioid receptor ($\time{\text{Tork}}\)
                                                                      361 CNSTRVRONTREHPSTANTVDRTN 384
                                                                                                                   355 QSTNRVR-NTVQDPASMRDVGGM0 377
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OPRK MOUSE
ID OPRK MOUSE
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80; Indels 22; Gaps

JULAR (POTENTIAL) (POTENTIAL).

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46.34; Score 977; DB 1; Length 367;

Best Local Bimilarity 52.24; Pred. No. 3.46-55; Marches 201; Conservative 46; Mismatches 109; Indias 28; Gapp
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-1- SUBCELLULAR LOCATION: INTEGERA I membrene protesin.
-1- TISSUE SEPCIFICITY: HIGHLY EXPRESSED IN SUVERAL BRAIN AREAS.
-1- SIMILARITY: BELONGS TO PAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
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N-LINKED (GLCNAC. .) (POTENTIAL)
N-LINKED (GLCNAC. .) (POTENTIAL)
N-LINKED (GLCNAC. .) (POTENTIAL)
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R PIR; 846239 6 846238

R PIR; 946551 84655.

R HSSP, 194956; 1050

R INCEPPORTOUT OF CONTROL OF CO
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EXTRACELLULAR (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
CYTOPLASHIC (POTENTIAL).
GYTOPLASHIC (POTENTIAL).
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206 226 L -> V (IN REF 2)
246 246 S -> P (IN REF 2)
348 348 S -> P (IN REF 2)
367 AA, 40223 MM, EB26375824784AD CRC64;
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EXTRACELLULAR (POTENTIAL).
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2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
3 (POTENTIAL).
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BETALINE-SDIGGENT PUBMEG-187452,

MEDINE-SDIGGENT PUBMEG-187452,

MEDINE-SDIGGENT PUBMEG-187452,

MEDINE-SDIGGENT PUBMEG-187452,

"ISOLIDIO OF a novel cDNA encoding a puterive membrane receptor with

"ISOLIDIO OF a novel cDNA encoding a puterive membrane receptor with

"ISOLIDIO OF a novel cDNA encoding a puterive membrane receptor with

"ISOLIDIO DEALN RECEPTOR POR THE NEUROPEPTIOR NOCIPEPTING NOGENAIN PO.

-I PUNCTION: RECEPTOR POR THE NEUROPEPTING NOCIPEDING NUMBER OF BRAIN PUNCTIONS,

INCLUDING INSTINCTIVE BEHAVIORS AND EMOTIONS. THE ACTIVITY OF

THIS RECEPTOR IS MEDIATED BY G PROTEINS WHICH INHIBITS ADENYLLL

CYCLAGE.
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                                                                                                                                                                                                                                       Rattuen norgalique (Rat)
Bukaryota; Mechroa, Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI_TextD=10116;
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Lachowicz J.E., Shen Y., Monama P.J. Jr., Sibley D.R.;
*Molecular clouning of a novel G protein-coupled receptor related to the opiete receptor family.*;
J., Neurochem. 64:34-40(1995).
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STRAIN-Wister; TISSUE-Brain,

HEDLINE-94218703; POLMOS-9185014;

PUNUE, K. Asto S., Hori K., Kishi M., Takeshima H., Iwabe N.,

Miyata T., Houtani T., Sugimoto T.;

Miyata T., Houtani T., Sugimoto T.;

CDNA cloning and regional distribution of a novel member of the
opicid receptor femily.";

PERS Lett. 343:42-46(1994).
01-JUN-1994 (Rel. 29, Created)
01-JUN-1994 (Rel. 29, Last sequence update)
10-MYY-2000 (Rel. 29, Last sequence update)
10-MYY-2000 (Rel. 39, Last empocation update)
Nocieopin receptor (Orphanin Po receptor) (Kappa-type 3 opioid open ORR.)
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194 LESAIGLEVMANATTKYRQGSIDCTLTPSHPTWYMBNLLKICVP1PAPIMPILIITVCYG 253

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MIM; 602548; -.
InterPro; IPR000276; GPC
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214 IMIRALAGYANISGSREKDRYLRRITRLYVYNYRYOGYTPYOVYVYUGGGOVOOGSET 293
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294 AVÄLLRETÄÄGVNSCLAPLINFLORBURGCFRKPCCASSLARMYSSRVASILAS 353
174 LASVVGVPVAIMGSAQVEDERIECLVRIPAPQDYMGPVPAICIPLPSPIIPVLIISVCY8 233
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6 (POTENTIAL).
EXTRACELLUIAR (POTENTIAL).
7 (POTENTIAL).
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233 VCYSLMIRRLRGVRLLSGSREKDRNLRRITRLVLVVVAVPVGCMTPVQVPVLAQGLGVQP 292
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181 PRNAKIVNYCHWILSBAIDLPWPPNATTKYRQGSIOCTLIFBHPPNYMENLLKICVPFFA 240
181 PRNAKIVNYCHWILSBAIDLPWPPNATTKYRQGSIOCTLIFBSFFYWRNILLKICVPFFA 240
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Tacherical conform (MOR-1A).*, Substituted (MUL-1A).*, Substituted (MUL-1999) to the EMBL/GenBank/DDBJ databases.

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01-MNR-2002 (TrEMBLrel. 20, Lest sequence update)
01-MNR-2002 (TrEMBLrel. 21, Lest annotation update)
Muspoiod creeptor variant A.
Hus musculus (Mouse)
Rukasyota, Meszos, Chordata, Craniata, Vertebrata; Buteleostomi;
Mammalis, Eutheria; Rodentia; Sciurognathi; Muridae, Murinae; Mus
NEL TaxiD=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Receptor.
Sequence 190 AA; 41563 MM; 6B5B6A686C255294 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BEQUENCE FROM N.A.
STRAIN=CD-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 કે
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IN 111

(BEQUENCE FROM N.A.

(BEALINE-99146417)

(CHAINIVE-99146417)

(CHAINIVE-99146417)

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(CHAINIVE-99146417)

(CHAINIVE-99146417)

(CHAINIVE-PROPERTY PLANDER E., Abbadie C., Chang A., Zuckerman A.,

(CHAINIVE-PROPERTY PLANDER E., Abbadie C., Chang A., Zuckerman A.,

(CHAINIVE-PROPERTY PROPERTY 
                                                                                                                                                                                                                                                    u Mus musculus (Mouse).
Makaryota, Metazos, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Butheria, Rodentia, Sciurognathi, Muridae, Muxinae, Mus.
                                      01-WAY-2000 (TEMBLEE). 13, Created)
01-WAY-2000 (TEMBLEE). 13, Lest sequence update)
01-WAY-2002 (TEMBLEE). 20, Lest annotation update)
0PRM.
PRT, 393 AA.
                                PRELIMINARY;
                                                                      301 IIKALITIPETFOTVSMIPCIALGYTNSCLMPULYAPLDRIPKRCPREPCIPESTIEQ 360
301 IIKALITIPETFOTVSMIPCIALGYTNSCLMPULYAPLDSNIPKRCPREPCIPESTIEQ 360
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61 GSPSMVTAITIMALYSIVCVVGLFGNPLVMYVIVRYTXMKTATNIYIFNLALADALATST 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 LPPGSVNYLMGTWPPGNILCKIVISIDYYNMFTSIPTLCTMSVDRYIAVCHPVKALDFRT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 PRIAKTONCHWILESBAIGLPWPHATTKYROGSIDCTLYPSHPTWYNBYLLKICVPITA 240
181 PRIAKTVONCHWILSBAIGLPWPHATTKYROGSIDCTLYPSHPTWYNBYLLKICVPITA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  301 IIKALITIPETTPOTVSWHPCIALGYTNSCLNPVLYAPLDENPKRCPREPCIPTSSTIEQ 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301 IIKALITIPETTPOTVSWHPCIALGYTNSCLNPVLYAPLDENPKRCFREPCIPTSSTIEQ 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ouery Match
Best Local Similarity 97.4% Pred. No. 5.39-173;
Matche 376; Conservative 3, Mismatches 7; Indels 0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 LPPOSVNYLMGTNPPGTILCKIVISIDYYNMPTBIPTLCTMSVDRYIAVCHPVKALDFRT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            In Y.X. X. Wu J., Chang A., Mahurter L., Pesternak G.W., identification and characterisation of a mu-opioid receptor splice butted (MOR-18). characterisation of a mu-opioid receptor splice butted (MOR-189) to the EMEL/GenBank/DDBJ databases. It exproy. Inspido205. GPCR_Rhodpsn.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-WAR-2002 (TTENBLrel. 20, Gredred)
01-WAR-2002 (TTENBLrel. 20, the sequence update)
01-JUN-2002 (TTENBLrel. 21, Lake amocation update)
Nu opioid receptor variant B1.
Nua musculus (Mouse)
Bakaroes, Metazoe, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalis, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
NuBl_TaxiD=10090;
                                                                                                                                                                                                                              161 ONSTRUÇARTREPERATURARIA
161 ONSARIRQUIRERPERATURARIA POLACACVPOANROOTKASDLLDLELET 412
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Seguence 191 AA; 41759 MM; ACOSBC14999C2552 CRC64;
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181 PRNAKIVNVCNWILSSAIGLPVMFMATTKYRQGSIDCTLTFSHPTWYWENLLKICVFIFA 240
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      181 PRNAKIVNVCNWILSSAIGLPVMPMATTKYRQGSIDCTLTPSHPTWYWENLLKICVFLFA 240
                                                                                                                                                                                                                           61 GSPSMVTAITIMALYSIVCVVGLFGNPLVMYVIVRYTKMKTATNIYIFNLALADALATST 120
                                                                                                                                                                                                                                                                                                                                          121 LPPQSVNYLMGTWPFGTILCKIVISIDYYNMFTSIFTLCTM9VDRYIAVCHPVKALDFRT 180
                                                                                                                                                1 MDSSAGPGNISDCSDPLAPASCSPAPGSWLNLSHVDGNQSDPCGPNRTGLGGSHSLCPQT 60
                                                       7, Indels 0; Gaps
                                                                                                                   1 MDSSTGPGNTSDCSDPLAQASCSPAPGSWLNLSHVDGNQSDPCGLNRTGLGGNDSLCPQT 60
Ouery Match
94.9%; Score 2003; DB 11; Length 391;
Best Local Similarity 97.4%; Pred. No. 5.46-17]; Indels 0;
Matchbes 376; Conservative 3; Mismatches 7; Indels 0;
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121 LPPOSVNYLMGTWPPGTILCKIVISIDYYNMPTSIPTLCTMSVDRYIAVCHPVKALDPRT 180
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181 PRIAKIYANCAMILESAIGLPWRPATKKRQGSIDCTLIFBHTTWFNLLKITOFIRA 240
181 PRIAKIYANCAMILESAIGLPWRPATKKRQGSIDCTLIFBHTTWFNLLKITOFIRA 240
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241 PIMPULIITVCYGLMILRLKSVRMLSGSKRKDRNLRRITRMYLVVVAVPIVCWTPIHIYV 300
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301 IIKALITETPOTVSWHPCIALGYTNSCLNPVLYAFLDBNPRCPREFCFTSSTIEG 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0, Gapa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 94.9%; Score 2003; DB 11; Length 439; Bet Local Similarity 97.4%; Pred No. 6e-173; Indels 0. Manches 37; Indels 0.
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03-DEC. 2001 (TrEMBLrel. 19, Last sequence update)
03-MAX-2002 (TrEMBLrel. 20, Last annoration update)
03-MAX-2002 (TrEMBLrel. 20, Last annoration update)
Macaca facticularis (Crab esting macacque) (Cynonolgus monh
Macaca facticularis (Crab esting macacque) (Cynonolgus monh
Mamalis Eutheris; Primates, Catarrhini; Cercopithécidae;
Mamalis Macaca.
MCBL_TaxID-9541;
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1095MS4
10095MS4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121 LPPOSVNYLMGTWPPCTILCKIVISIDYNMPTSIFTLCTMSVDRYIAVCHPVKALDPRT 180
121 LPPOSVNYLMGTWPPCNILCKIVISIDYNMPTSIFTLCTMSVDRYIAVCHPVKALDPRT 180
122 LPPOSVNYLMGTWPPCNILCKIVISIDYNMPTSIPTLCTMSVDRYIAVCHPVKALDPRT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181 PRNAKIVNYCHWILBSAIGLPVMPMATTKYRQGSIDCTLTPSHPTWYWENLLKICVPIPA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         241 PIMPILIITYCYGLAILALAGNRALGGSRACDRILRITRWIJWWANPIYCWTPIHIWY 300
241 PIMPILIITYCYGLAILALAGSRACDRILGSRACDRILRITRWIJWAYDYYCYTYTHWY
242 PIMPILIITYCYGLAILALAGSRACDRILGSRACDRILRITRWIJWAYDYYOYDYY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels 0, Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus (Mouse).
Makaryota, Motaaca; Chordata; Craniata; Vertebrata; Buteleostomi;
Mommalis; Butheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus.
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Museryota, Metatoa, Chordata, Craniata, Vertebrata, Buteleostomi, Bukaryota, Metatoa, Chordata, Craniata, Vertebrata, Buteleostomi, Memmalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus. 1711_TaxiD=10090;
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STRAIN-CS7BL/6

STRAIN-CS7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ery Match 94.9%; Score 2003; DB 11; Length 409; set Local Similarity 97.4%; Pred. No. S.6e-173; Indels 0; itches 376; Conservative 3; Mismatches 7; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Receptor.
SEQUENCE 409 AA, 45911 MM, 2DC2D18223481EA6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OSRODII PRELIMINARY; PRT; 438 AA.
OSRODII (TEMBLES) 13. Created)
11-MAY-2000 (TEMBLES) 13. Lest sequence update)
11-WAY-2002 (TEMBLES) 20, Lest amnotation update)
11-WAR-2002 (TEMBLES) 13. Lest amnotation update)
11-WAR-2003 (TEMBLES) 13. Lest amnotation update)
12-WAR-2003 (TEMBLES) 13. Lest amnotation update)
13-WAR-2003 (TEMBLES) 13. Lest amnotation update)
13-WAR-2003 (TEMBLES) 13. Lest amnotation update)
13-WAR-2003 (TEMBLES) 13. Lest amnotation update)
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                                                                                                                                                                                       BEQUENCE PROM N.A.
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COSROL 10
COSROL 
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303 PAPIMPULITYCYGLMILRLKSVRMLSGSKEKDRNLRRITRMYLVVVAVPIVCMTPIHI 362
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                                                                                                                                                                                                                                                                                                                                                                243 RIPRIAKIINVCNWILSSAIGLPVMFWATTKYRQGGIDCTLTFSHPTWYWENLLKICVFI 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          239 PAPIMPILIITVCYGLMILRLKSVRMLSGSKBKDRNLRRITRMVLVVVAVPIVCWTPIHI 298
119 STLPPOSVNYLMGTWPPGTILCKIVISIDYYNMPTSIPTLCTMSVDRYIAVCHPVKALDP 178
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Mas musculus (Mouse).
Mammalis, Butheria; Rodentia; Sciurognathi; Muridae; Musinse, Mus.
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01-MAR-2002 (TEBMBLrel. 20, Last sequence update)
MOR-1G. (TEBMBLrel. 21, Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 GTLPPQSVNYLMGTWPPGTILCKIYISIDYYNMPTSIPTLCTMSVDRYIAVCHPVKALDF 180
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113 PTOSPSHITAITIMALYSTUCYOULFGNPLWNYTUNTYTOKTATNITYPNIALDALAT 192
123 PTOSPSHITAITIMALYSTUCYOULFGNPLWNYTUNTYTOKTATNITYPNIALADALAT 192
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241 PAPIMPILIITYCYCLMILRRIKSVPALGGGKERORNLRRITRWYLVVAVPITCMPPHI 300
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                                                                                                                                                                                                                                                                                                                                                                         Owery Match 92.1%; Score 1945; DB 4; Length 454; Best Local Similarity 92.9%; Pred. No. 1.1a-167; Marches 344; Conservative 13; Mismatches 184; Tonservative 13; Mismatches 184; Conservative 13; Mismatches 184; Conservative 13; Mismatches 185; Conservative 13; Mismatches 185; Conservative 187; Conser
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1- SUBCELLUAR LOCATION: INTEGRAL MEMBRANE PROTEIN (BY SIMILARITY).

1- SIMILARITY: BELONGS TO FMAILY 1 OF G-PROTEIN COUPLED RECEPTORS.

EMBL: AL136444 CAC1542.1;

InterPro; IPR00275 GPC-Rhodpsn.

PRINTS, PR00277; GPC-Rhodpsn.

PRINTS, PR00277; GPC-Rhodpsn.

PROSITE; PR00277; GPC-RHN/RECEP P1 1; 1.

PROSITE; PS00277; GPC-RHN/RECEP P1 2; 1.

GPC-PROTEIN COUPLE de Teceptor - Clycoprofein; Receptor - Clycoprofein; Recep
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O9H573 CAREALMINARY, PRT; 454 AA.
O1-MAR-2001 (TTERBLEE] 16, Lest sequence update)
O1-MAR-2001 (TTERBLEE] 16, Lest sequence update)
O1-MAR-2001 (TTERBLEE] 15, Lest sequence update)
O1-MAR-2001 (TTERBLEE] 15, Lest sequence update)
O1-MAR-2001 (TTERBLEE] 10, Lest sequence update)
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ONEM:
OFFICE AND SEASON (TRESPERS OFFICE AN
         Length 400,
         Onery Match 93.9%, Score 1982, DB 6, Length 40 Bett Local Similarity 92.8%, Pred. No. 4.3e-171, Matches 31; Conservative 13; Mismatches 14; Indels
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26 IRTTOKKTAVIYIPNIALIDALATSTLPPOSVNYLAGTWPPONILCKIVISIDYNAMT 85
26 IRTTOKKTAVI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   154 SIFTLCTMSVDRYIAVCHPVKALDFRTPRNAKIVNVCNWILGSAIGLPVMFMATTKYRQG 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            214 SIDCTLTPSHPTWYWENLLKICVPIPAPIMPILIITVCYGLMILRLKSVRMLSGSKEKDR 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       146 SIDCTLIFSHPTWTWENLLKICVPIPAFIWPVLIITVCYGLMILRLKSVRMLSGSKEKDR 205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            United (TERBLEA) 19, Created)
01-DEC-2001 (TERBLEA) 19, Last sequence update)
01-DEC-2001 (TERBLEA) 10, Last enducation update)
Nu opioid receptor (Pragment).
Nu maculus (Mouse)
Bukeryote, Metazos, Chordata, Craniata, Vertebrata, Buteleostomi)
Nemmalia; Eutheria, Rodentia, Sciurognathi, Muridae, Murinse, Mus.
NCBI_TaxID=10090;
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi, Mammalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae; Mus NCB_10090,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   334 VLYAFLDENPKRCPREPCIPTSSTIEGONSTRVRONTREHPSTANTVDRTNHO 386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               266 VLYAFLDENFKRCPREPCIPTSSTIEQQNSARIRQNTREHPSTANTVDRINHQ 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 72.8%; Score 1537; DB 11; Length 370; Best Local Similarity 98.3%; Pred. No. 7e-131; Matches 288; Conservative 3; Mismatches 2; Indele 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT; 291 AA.
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                                                                                                                                                                                                                    EQUENCE PROM N.A.
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0912Z4
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0012Z6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              86 SIPTLCTMSVDRYIAVCHPVKALDPRTPRNAKIVNVCKWIL68AIGLEVMFWATTKYRQG 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    224 NIARITRANLAWANPINCATPIHIYNIKALITIPETTOGYGNIPCIALGTRISCLAP 333
206 NIARITRANLAWANPINCATPIHIYNIIKALITIPETTPOGYGNIPCIALGTRISCLAP
206 NIARITRANLAWANPINCATPIHIYNIIKALITPETTPOGYGNIFCIALGTRISCLAP
207 NIARITRANLAWANPINCATPIHIYNIIKALITPETTPOGYGNIFCIALGTRISCLAP
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                          266 VLYAPLDENFKRCFREPCIPTSSTIEQQNSARIRQNTREHPSTANTVDRTNHQLENLEAE 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus (Mouse).

''i
Muskaryota; Matazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mummalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
''(18]_Taxib=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Receptor.
SEQUENCE 325 AA, 37479 MW, B245158D1P8P8102 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               08VIPO PRELIMINARY, PRT; 370 AA.
08VIPO, 08VIPO, 08VIPO, 09VIPO, 01-4AA-2002 (TEMBLEA). 20, Last sequence update)
01-5VAR-2002 (TEMBLEA). 20, Last ennotation update)
MOR-1M.
NOR-1M.
NOR-1M.
                                                                                                                                                                                                                                                                                                                                                                       OBVINA PRELIMINARY, PRT, 325 AA. 08VINA ORVINA (CARLED CO. CREATED) O. NAN-2002 (TERMBLYOL. 20, CREATED) OL-NAR-2002 (TERMBLYOL. 20, Last sequence update) OL-UN-2002 (TERMBLYOL. 21, Last annotation update) Mu opicid receptor isoform MOR-IN.
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                                                                                                                                     394 TAPLP 398
                                                                                                                                                                                                       11111
326 TAPLP 330
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RESULT 11

1009VIM

CONTINUE ON THE O

RESULT 12 08VIP0 1D 08VIP0 AC 08VIP DT 01-MAD DT 01-MAD DT 01-MAD DT 01-JU DT 00-JU DT 00-MAD DT 00-MAD DT 00-MAD DT 00-MAD DT 00-MAD

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176 RNAKIVNVCNWILGSAIGLPVWYMASTTSDLHSNGIIDCTLLFPHPSWYWENLLKICVPI 235
                                                                                                                                                                                           S6 PVIVAIIITALYSIVCVMGMGLVGNVLVMYVTIRYTKHKTATNIYIFNLALADSLATSTL 115
                                                                                                                                                                                                                                                                       122 PROSUNYLAGTWPPGTILCKIVISIDYNWPTSIPTICTMSVDRYIAVCHPVKALDPRTP 181
116 PROSUNYLAGTWPPGDRICKIVMSIDYNWPTSITYLTMSVDRYIAVCHPVKALDPRTP 175
117 PROSUNYLAGTWPPGDRICKIVMSIDYNWPTSITYLTMSVDRYIAVCHPVKALDPRTP 175
                                                                                                                                                                                                                                                                                                                                                                                                                 182 RNAKIVNVCNWILSSAIGLPVMPMATTK -- - YRQGSIDCTLTPSHPTWYWENLLKICVPI 238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          236 PAPIMPULITYCYGLMILRLKGVRMLSGSKEKDRNLRRITRMYLVVVAVPIVCWTPIHI 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    299 YVIIKALIIIPETTPOTVSMIFCIALGYTNSCLAPVLYAPLDBNFKRCPRBFCIPTSSTI 358
296 YVIIKALVIIPRBLLGTITHFCLALGYTNSCLAPVLYAPLDSNFKRCFRBECVPSSFV 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  239 PAPIMPILIITVCYGLMILKLKSVRMLSGSKEKDRNLRRITRMVLVVVAVPIVCMTPIHI 298
                                                              4 NIGNISD-LLYALSNPMVS---NSSILCRNPSNSSGL---VNMNSSVCDRTPBLDKSST 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        97368346, PubMed=9223341,
M.G., Greten P.R., Harvey R.J., Kreienkamp H.J., Stuemer T.,
                 9 NTSDCSDPLAQASCSPAPGSWLNLSHVDGNQSDPCGLARTGLGGNDSLCPQT----GSP 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Catostomus commersoni (White sucker).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Actinopterygii, Neopterygii; Teleostei; Ostariophysi; Cyptiniformes;
Catostomides; Catostomus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       H., Lederis K., Richter D.;
Teceptoris from a lover vertebate (Catostomus commersoni):
e. pharmacology, coupling to a G-protein-gated inward-
ling potassium channel (GIRM), and evolution.
it had sci U.S.A. 94:8214-8219 (1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -c. NRL1, Acad. Sci. U.S.A. 94:8114-8119(1997).
- SUGCELLUIA LOCATION: INTEGRAL MEMBRANE PROTEIN (BY SIMILARITY)
- SIMILARITY: BELONGS TO PAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-JAN-1998 (TrEMBLral, 05, Created)
01-JAN-1998 (TrEMBLral, 05, Last sequence update)
01-MAR-2002 (TrEMBLral, 20, Last annotation update)
MM-oploid receptor.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            356 DLONSTRERNPORDGOSSGHTVDRTNOOV 384
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042324
ID 042324
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121 DCTLTPSHPTWYNENLLKICVPIPAPIMPVLIITVCYGLMILRLKKSVRMLGGSKEKDRNL 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181 RRITRWALWWAVPIVCHTPIHITWIIKALITIPBITPQTVSHHPCIALGYTNSCLNPVL 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              96 YTKONKTATNIYIPNLALADALATSTLPPQSVNYLMGTWPPGTILCKIVISIDYYNMPTSI 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     216 DCTLTPSHPTWYWENLLKICVPIPAPIMPILIITVCYGLMILKLKSVRMLSGSKEKDRNL 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      276 RRITRMVLVVVAVPIVCWIPIHIYVIIKALITIPBITPQTVSWHPCIALGYINGCLMPVL 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 YTRWKTATNIYIPNIALADALATSTLPPQSVNYLMGTWPPGNILCKIVISIDYYNMPTSI 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0, Gaps
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Bikaryora; Metazoa; Chordeta, Craniata; Vertebrata; Buteleostomi;
Attinopteryali Neopterygii; Taleostel; Ostatiophysi; Cyptiniformes;
Cyptinides; Danio.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OUTUNICE, FROM N.A. HOLDMed-11111536; HEDLINE-20565716; PubMed-11111536; Barrallo A., Gonzalaz-Garmienco R., Alvar P., Rodriguez R.E.; Barrallo A., Gonzalaz-Garmienco R., Alvar P., Rodriguez R.E.; Crogra, a new opioxid receptor-11xe gene from the telecost zebrafiah (Danio zebrolo);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     68.6%; Score 1449; DB 13; Length 384; 74.3%; Pred. No. 6.6e-123; ive 30; Mismatches 52; Indels 18;
                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 72.5%, Score 1531, DB 11, Length 291, Beat Local Similarity 98.6%, Pred. No. 1.99-130, Metches 23, Indels 0, Metches 23, Indels 0, Metches 27, Conservative 2\frac{1}{4}, Mismatches 2, Indels 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            291 AA, 33490 MM; 437C07615CAADD47 CRC64,
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Best Local Similarity 74.3
'tches 289; Conservative
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PROSITE, PSSO
G-protein coul
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BEQUENCE
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Bearch completed: March 25, 2003, 09:58:23 Job time : 41 seco